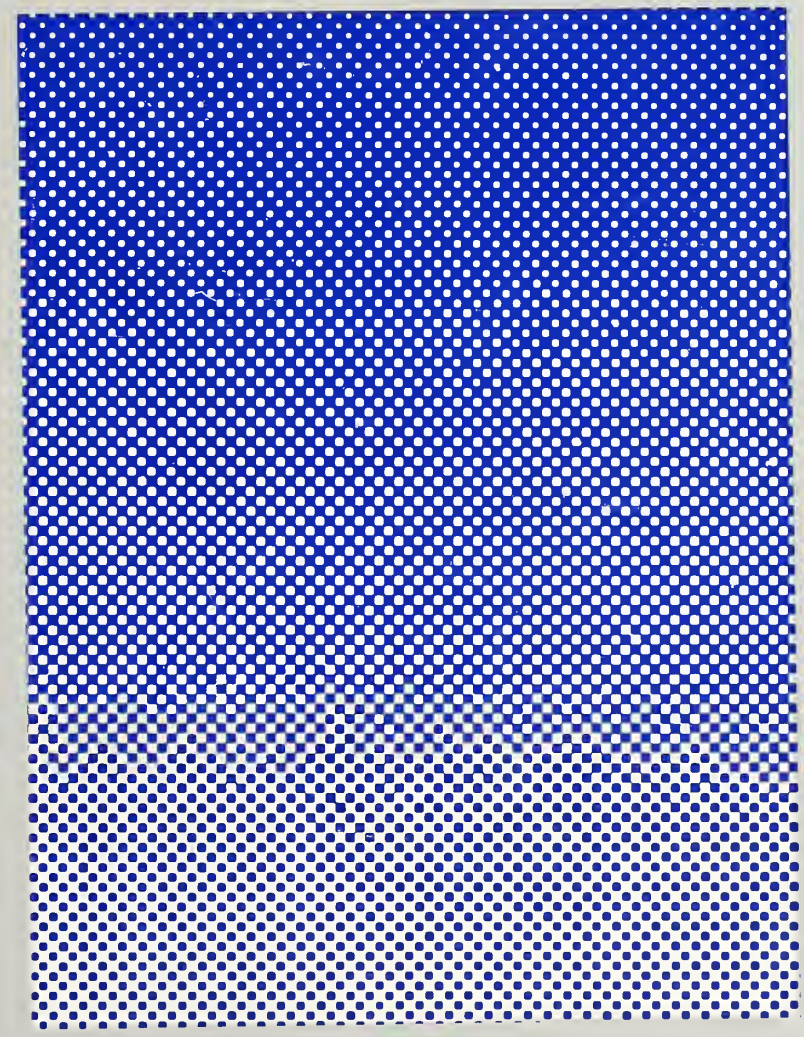
MEDICARE HOSPITAL MORTALITY INFORMATION



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Region IX

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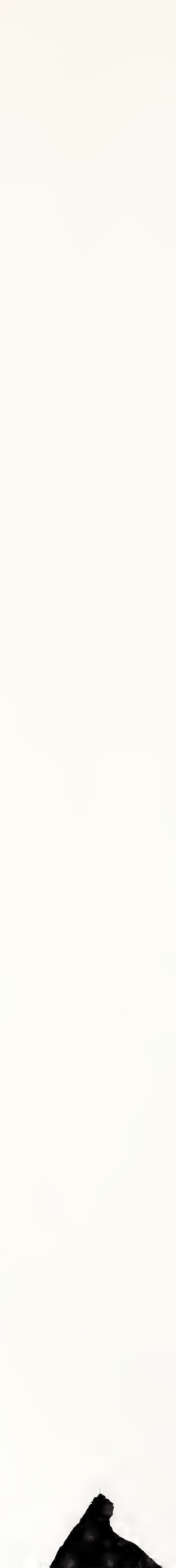
U.S. Department of Health and Human Services
Health Care Financing Administration



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1987
Region IX
[v.1]

MEDICARE HOSPITAL MORTALITY INFORMATION

1987

AMERICAN SAMOA, ARIZONA, GUAM, HAWAII,

NEVADA

REGION IX

OTIS R. BOWEN, M.D.
SECRETARY
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

WILLIAM L. ROPER, M.D.
ADMINISTRATOR
HEALTH CARE FINANCING ADMINISTRATION

The Health Care Financing Administration (HCFA) was established on March 9, 1977, to combine health financing and quality assurance programs into a single agency. HCFA is responsible for the Medicare program, Federal participation in the Medicaid program, the Peer Review Organization program and a variety of other health care quality assurance programs.

The mission of the Health Care Financing Administration is to ensure the effective administration of our programs in order to promote the timely delivery of appropriate, quality health care to over 56 million of the nation's aged, disabled and poor. The agency must also ensure that beneficiaries are aware of the services for which they are eligible, that those services are accessible and of high quality, and that agency policies and actions promote efficiency and quality within the total health care delivery system.

AMERICAN SAMOA

LBJ TROPICAL MEDICAL CENTER 1

ARIZONA

BAPTIST MEDICAL CTR-SCOTTSDALE 2
BENSON HOSP 3
BULLHEAD COMMUNITY HOSPITAL 4
CASA GRANDE REGIONAL MED CTR 5
CHANDLER REGIONAL HOSPITAL 6
CHINLE COMPREHENSIVE CARE FACILITY 7
COMMUNITY GENERAL HOSPITAL 8
COMMUNITY HOSP MEDICAL CENTER 9
COPPER QUEEN COMMUNITY HOSPITAL 10
DESERT SAMARITAN HOSP & HLTH CTR 11
EL DORADO MEDICAL CENTER 12
FLAGSTAFF HOSP MED CENTER 15
GILA GENERAL HOSPITAL 18
GOOD SAMARITAN MED CTR 19
HAVASU REGIONAL HOSPITAL 21
HOLY CROSS HOSP HEALTH CTR 22
HUMANA DESERT VALLEY HOSP 23
HUMANA HOSPITAL PHOENIX 26
JOHN C LINCOLN HOSP AND HLTH CENTER 29
KENNECOTT HOSPITAL 32
KINGMAN REGIONAL HOSPITAL 34
KINO COMMUNITY HOSP 35
LEWIS R PYLE MEMORIAL HOSP 36
MARCUS J LAWRENCE MEMORIAL HOSP INC 37
MARICOPA CO GEN HOSP 38
MARYVALE SAMARITAN HOSPITAL 41
MESA GENERAL HOSP MEDICAL CTR 42
MESA LUTHERAN HOSP 43
MIAMI-INSPIRATION HOSPITAL 46
MT GRAHAM COMMUNITY HOSP 47
NAVAPACHE HOSP 48
NORTHERN COCHISE COMM HOSP 50
NORTHWEST HOSP 51
PAGE HOSPITAL 52
PARKER COMMUNITY HOSPITAL 55
PARKER PHS INDIAN HOSPITAL 56
PHOENIX BAPTIST HOSP AND MED CTR 57
PHOENIX GEN HOSP 58
PHOENIX GENERAL HOSPITAL & MEDICAL C 59
PHOENIX MEMORIAL HOSPITAL 60

PHS INDIAN HOSP 61
PHS INDIAN HOSPITAL 62
PHS INDIAN HOSPITAL 63
PHS INDIAN HOSPITAL 64
PHS INDIAN HOSPITAL 65
PHS INDIAN HOSPITAL 67
PHS INDIAN HOSPITAL 68
PHS INDIAN MEDICAL CENTER 69
PINAL GENERAL HOSP 70
SAGE MEMORIAL HOSPITAL 71
SCOTTSDALE MEM HOSP 72
SCOTTSDALE MEM HOSP - NORTH 75
SIERRA VISTA COMM HOSP 76
SOUTHEAST ARIZONA MEDICAL CENTER 77
ST JOSEPHS HOSP 79
ST JOSEPHS HOSP MED CTR 80
ST LUKES BEHAVIORIAL HLTH CTR 81
ST MARY'S HOSP HEALTH CTR 82
ST. LUKE'S MEDICAL CENTER 83
TEMPE ST. LUKE'S HOSPITAL 85
THUNDERBIRD SAMARITAN HOSP & HLTH CT 87
TUCSON GENERAL HOSPITAL 88
TUCSON MEDICAL CENTER 90
UNIVERSITY MEDICAL CENTER CORP 93
VA HOSP 94
VALLEY LUTHERAN HOSP 95
VALLEY VIEW COMMUNITY HOSPITAL 98
WALTER O BOSWELL MEM HOSP 100
WHITE MOUNTAIN COMMUNITIES HOSP 102
WICKENBURG COMMUNITY HOSPITAL 103
WINSLOW MEM HOSP 104
YAVAPAI COMMUNITY HOSPITAL 106
YUMA REGIONAL MEDICAL CENTER 107

GUAM

GUAM MEM HOSP 108

HAWAII

CASTLE MEMORIAL HOSPITAL 109
G N WILCOX MEMORIAL HOSPITAL 110
HILO HOSPITAL 111
HONOKAA HOSPITAL 112
KAHUKU HOSP 113
KAISER FOUNDATION HOSP 114

KAPIOLANI MEDICAL CENTER 117
KAU HOSPITAL 119
KAUAI VETERANS MEMORIAL HOSPITAL 120
KOHALA HOSPITAL 121
KONA HOSP 122
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KULA HOSPITAL 126
LANAI COMM HOSP 127
MAUI MEMORIAL HOSPITAL 128
MOLOKAI GENERAL HOSPITAL 129
QUEENS MEDICAL CENTER THE 130
ST FRANCIS HOSPITAL 131
STRAUB HOSPITAL 132
WAHIAWA GENERAL HOSPITAL 133

NEVADA

ADELSON HOSPICE-NATHAN SPECIALTY HOS 134
BATTLE MOUNTAIN GEN HOSP 135
BOULDER CITY HOSPITAL 136
CARE UNIT HOSP OF NEVADA 137
CARSON-TAHOE HOSPITAL 138
CHURCHILL PUBLIC HOSPITAL 140
COMMUNITY HOSPITAL OF NO LAS VEGAS 141
DESERT SPRINGS HOSPITAL 143
ELKO GENERAL HOSP 145
GROVER C DILS MED CTR 146
HUMANA HOSPITAL SUNRISE 147
HUMBOLDT GENERAL HOSPITAL 150
LAKESIDE COMMUNITY HOSP 151
MT GRANT GENERAL HOSPITAL 152
NYE GENERAL HOSPITAL 153
OWYHEE PHS INDIAN HEALTH SERVICE HOS 154
PERSHING GENERAL HOSP 155
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TECHNICAL APPENDIX A-1

INTRODUCTION

The nation's Medicare program, which is administered through the Health Care Financing Administration (HCFA) in the Department of Health and Human Services, now has 31 million beneficiaries. One of HCFA's primary responsibilities is to ensure that Medicare beneficiaries receive quality health care. We believe that the publication of the Medicare hospital mortality information contained in this document will contribute to that end.

This particular information release presents information to answer the question: "What is the actual death rate for each hospital compared to what would have been expected for that particular hospital, given what we know of the characteristics of patients admitted?" The statistics are presented in the hope that they will serve the public and the hospitals in their common interest of improving quality of care.

The development of mortality statistics is a complicated and controversial task, since the mortality rate at a given hospital may reflect, among other factors, age, sex, diagnosis, and severity of illness of patients admitted to that hospital, as well as the purpose and quality of the care they received. Characteristics affecting health and the probability of death vary among the patient populations served by individual hospitals. Consequently, the mortality rates in different patient populations will vary.

The usefulness of this information depends upon the accuracy with which mortality rates can be predicted and the stability of these rates over time for each hospital. It is important to understand that the difference between the hospital's mortality rate and the predicted values in the tables contained in this document may not be a direct measure of the quality of care rendered in hospitals. There is one primary reason for this: we do not now have any direct measurement tool with which we can adjust fully for differences among hospitals in how severely ill their patients are. For instance, two hospitals might have very different death rates for patients admitted for stroke, even after we have adjusted for age and sex. This might happen because one hospital's stroke patients consist of a significant number admitted in a coma and are thus more likely to die, whereas another hospital's patient population represents a broader spectrum of patients with cerebrovascular problems, or because these hospitals in fact provide different levels of quality of care. In addition, other factors affecting the probability of death in a particular case (e.g., family status/support) and overall health status are not included in the predictive model because information on them is not readily available.

When properly understood and used, this information can be useful; it can also be very misleading if it is interpreted incorrectly. The information simply describes one of several possible outcomes at a hospital--post admission mortality for Medicare beneficiaries. The information is not necessarily representative of a hospital's total performance in all aspects of patient care, and is best used to view experience in individual hospitals rather than making comparisons among hospitals. Individual hospitals may have very good reasons for their rates being higher than the ranges predicted by HCFA's model. Accordingly, it was important for hospitals to have an opportunity to review their specific information and to provide comments to HCFA and the public. We asked each hospital to prepare its comments on the information being released to the public, and we are including those comments in this publication.

This information is an important contribution to the health care community and should be reviewed by a wide range of individuals and organizations including hospital administrators, Peer Review Organizations, physicians, and researchers. Among these audiences, perhaps the hospital administrator will find the information most useful--as a screening tool and in consulting with medical staff to evaluate a hospital's strengths and weaknesses. In this way, the information should lead to analysis and subsequent actions which will capitalize on areas of strong performance and strengthen areas where improvement is needed. For example, we expect that hospitals and their medical staffs, using established and newly emerging quality assessment techniques, will try to determine what useful information can be derived about their hospitals and how they function.

Consumers should read the explanations of the uses and limitations of the information, as well as any comments a hospital may have provided, and should consider carefully the different roles that different hospitals play in their community. For example, one hospital might have different death rates than another because it serves more severely ill patients or because it is a trauma or emergency center.

The development and presentation of this information continues to be an important part of HCFA's responsibilities in the health care community. Consequently, in making the information as accurate and useful as possible, over the past several years we have discussed the theoretical framework and statistical approach with a number of nationally recognized technical experts in appropriate fields. Based on their recommendations, we continue to believe that the models used in this work are reasonable and appropriate for the intent of the publication.

This year we made three significant changes in the way in which we presented this information:

- First, we are presenting information for 1986 and 1987. The information for 1986 may be somewhat different from that published last December, since it is based on this year's methodology.

- Second, we are including information about each hospital, such as bed size and other characteristics, which we obtained from data contained in the American Hospital Association's (AHA's) 1987 Annual Survey of Hospitals files or, where such information was not available from the AHA file, HCFA's Medicare/Medicaid Automated Certification System (MMACS) files.

- Third, instead of arranging the hospital mortality information and comments alphabetically by State, we have arranged the States regionally according to HCFA's 10 regional offices.

During our discussions with the experts, it was further recommended that we concentrate our efforts this year on validation of the data. Therefore, we have undertaken the following validation studies targeted to coincide with this year's release of the Hospital Mortality Information:

- HCFA is engaged in a statistical evaluation of the Hospital Mortality Information using clinical data abstracted by MediQual Systems, Inc. from over 40,000 medical records from a carefully selected sample of hospitals. The data consist of clinical characteristics of Medicare patients as ascertained in the first 48 hours of hospitalization, and include data from the patient history and preadmission findings, to permit assessment of the severity of illness at admission and its impact upon mortality. The validation consists of a comparison of the results of the mortality rate analyses with and without the adjustments for patient severity permitted by the specially obtained clinical data. This will allow conclusions about the extent to which patient severity impacts the mortality rates. Hospitals which participated in this study have done so voluntarily. HCFA has shared hospital specific results with each facility from which medical records were abstracted.

- We will be comparing results of the mortality rate analyses with the results found by all Peer Review Organizations (PROs) in applying HCFA's Generic Quality Screens to cases reviewed as a part of ongoing PRO review activities. The purpose of this particular validation effort is to determine the extent to which an alternative presumed measure of quality of care correlates with mortality rates.

In addition, the format for presentation, the process for sharing the information with individual hospitals, and the statistical methodology have been discussed at various meetings with leaders of organizations representing Medicare beneficiaries, physicians, and hospitals. Also, we have spent many months reviewing the comments received from the hospitals during the past 2 years regarding their patient-specific data and our mortality information publication.

Many suggestions from these sources have been incorporated into the final publication. For example, following the release, we examined a limited

number of cases in which hospitals advised us that an individual shown as deceased on HCFA's records was in fact alive. An analysis of specific cases confirmed that there was a report of a date of death in the HCFA data base at the time the Medicare hospital mortality information was being analyzed. In most cases, we found that the source of the date of death in the record was the hospital inpatient bill provided by the facility. For example, the HCFA records showed that a bill submitted by Hospital "X" for an inpatient stay for a patient ending February 12, 1986 indicated the patient status at time of discharge as "Expired." This bill was processed on April 8, 1986 and served as part of the HCFA data base at the time we prepared the release of hospital mortality information. (For Medicare hospital mortality analyses, we used the Medicare billing records received for the June update of the MEDPAR file.) In July 1987, a bill was processed by HCFA for a subsequent hospital stay for this beneficiary and as a result we removed the date of death from our records. Unfortunately, this subsequent information was obtained too late to be included in the final information release. Although this type of billing problem was minimal on a national basis, we hope that an indirect byproduct of this process will be improved accuracy in coding and billing procedures.

The publication of Medicare Hospital Mortality Information is an ongoing process at HCFA. We are continuing to do everything we can to make this information more useful to both the public and the health care professions. We are refining ways to use the information as a screening tool for "quality of care" purposes, and we are developing tools to adjust for differences in disease severity. Thus, this year we provided hospitals with information on the Medicare Mortality Predictor System (MMPS) which is designed to help hospitals interpret the mortality rates of their patients. In addition, because we recognize that mortality rates alone do not adequately measure how effectively a hospital cares for its patients, we will be developing other measures of outcome, such as the need for medical treatment after discharge, to assess the performance of hospitals more fully.

Just as we made improvements in the methodology used last year, we expect that when the 1989 release is published, it, too, will reflect progress toward more accurate and useful information for hospitals, physicians, and consumers alike. This will contribute to assessment of and improvement in the effectiveness of medical services.

William L. Roper M.D.

William L. Roper, M.D.
Administrator

DESCRIPTION OF MORTALITY INFORMATION

Before reading the tables containing the hospital-specific information and the comments provided by individual hospitals, the reader will find it useful to understand the format and presentation of the information in this document.

The analyses of the mortality rates associated with hospitalizations in 1987 are very similar to those carried out last year on Medicare hospitalizations which occurred in 1986. Only one hospitalization for every patient was used--the last hospitalization with a discharge in calendar year 1987. The event evaluated was death within 30 days of admission to the hospital.

For each hospital, information is presented for overall Medicare patient mortality and each of 16 diagnostic categories. The information consists of the number of Medicare patients, the actual mortality rate, and a range of predicted mortality, given the mix of patients.

The reader should note three significant changes in the way the information is organized in this year's publication:

- First, we are presenting information for 1986 and 1987. The information for 1986 may be somewhat different from that published last December, since it is based on the revised methodology discussed below.

- Second, we are including information about each hospital, such as bed size and other characteristics, which we obtained from data contained in the American Hospital Association's (AHA's) 1987 Annual Survey of Hospitals files or, where such information was not available from the AHA file, HCFA's Medicare/Medicaid Automated Certification System (MMACS) files. These hospital characteristics are found at the bottom of each hospital summary page containing the 1986 and 1987 mortality rates and ranges. A more detailed discussion of the hospital characteristics can be found in the section entitled "Hospital Characteristics Definitions."

- Third, instead of arranging the hospital mortality information and comments alphabetically by State, we have arranged the States regionally according to HCFA's 10 regional offices. Thus, the hospital information and comments are arranged alphabetically by State within each State's respective regional volume. A complete listing of States by region (and volume) can be found at Table 1.

Before reviewing the summary table for your hospital, it would be helpful to describe how the numbers were derived and what they mean:

- Number of Cases. This figure is the number of individual Medicare beneficiaries whose last discharge from a short term, acute care hospital in a calendar year was from the hospital listed. The total number for each hospital is presented under the category "all cases."

Similarly, for each diagnostic category, the number of cases consists of the number of Medicare beneficiaries whose last discharge in the calendar year was from the hospital cited and whose principal diagnosis at admission fell within the specific diagnostic category.

Since only a patient's last hospital discharge (including death occurring in a hospital) is "counted" in the total number, HCFA's computation and that maintained by individual hospitals will generally differ. For example, if John Doe was a patient at Hospital A three times during 1987, the methodology used in HCFA's analysis counts only the last discharge in 1987 in the hospital's total. Normally, a hospital maintains statistics regarding each of its admissions and so would count Mr. Doe as three cases. In addition, in this example, if Mr. Doe were admitted later in the year to Hospital B (another acute care hospital) and then discharged in 1987, and this latter stay represented his last discharge for 1987, his case would be counted in Hospital B's total and he would not appear at all in Hospital A's count.

The key factor to remember is that we are examining last hospital discharges in 1987. In some cases, this will necessitate the inclusion of certain patients admitted to the hospital in 1986 or who died in January 1988.

- o Actual Mortality Rate. This figure presents the percentage of each hospital's Medicare patients who died within 30 days of the admission that resulted in the last-occurring discharge of the patient in 1987. (The percentage is rounded to the nearest whole percentage point.)

  Where, for example, Hospital A had a universe of 1000 patients whose last acute care hospital discharge in 1987 was from Hospital A, and 100 of these patients died within 30 days of their admission, whether as hospital inpatients or after discharge, the actual mortality rate would be 10 percent. This rate includes cases in which a beneficiary was admitted to the hospital in 1986 and was discharged in 1987. It also includes those instances in which a beneficiary was discharged in 1987 and died within 30 days of admission, even though the 30-day period extends into 1988. Cases in which the beneficiary was not discharged in 1987 are not part of the rate. For example, a person who was admitted to a hospital on December 28, 1987, discharged on January 5, 1988 and died on January 8, 1988 would not be a part of the calculation, even though that person died within 30 days of a 1987 admission.

- o Range for Predicted Mortality. This column gives an estimate of mortality rates for cases equal in number and with the average characteristics of the cases treated by the hospital. The range is derived in part by determining, based on national experience, the contribution to the probability of dying associated with various patient characteristics: the number of high, low, and undefined risk hospital admissions in the previous six months, transfer status, age, sex, and presence of up to four of eight possible comorbid conditions--cancer, chronic cardiovascular disease, cerebrovascular degeneration/chronic psychosis, chronic pulmonary disease, chronic renal disease, chronic liver disease, diabetes, hypertensive disease--and

by applying weights of the risk factors to the actual number of patients at the hospital to enable compilation of an expected mortality rate. This rate is converted, with adjustment for the variability expected given the number of cases, to a range of predicted mortality rates. It is important to note that the fewer the number of cases included in a given diagnostic category, the greater the uncertainty of the expected mortality range and, therefore, the wider the range. A larger number of cases yields greater precision, and therefore, a more narrow range of predicted mortality rates.

The principal source of data for the analysis was the HCFA Medicare Provider Analysis and Review (MEDPAR) file which contains information about each Medicare hospital discharge. Information about beneficiaries, including date of death, was obtained from the Social Security Administration.

The analyses were performed by means of logistic regression, with patients grouped into 17 distinct diagnostic categories: ten high risk and six low risk and one category containing all others. Similar to last year, the risk factors (covariates) included in the regression analyses within each diagnostic category were age, sex, significant comorbidities, number of admissions by risk category within 6 months, and status as a transfer patient. However, in response to comments on last year's definition of the diagnostic categories, the present categories are more risk-homogeneous. That is, the mortality rates associated with the ICD-9-CM codes for the principal diagnoses were evaluated and were used to determine whether a code should be placed in the high risk, the low risk, or the "undefined" category. Consequently, while the diagnostic categories still follow medical disciplinary lines, the range of mortality rates in each diagnostic category is more restricted. The net result is that the 16 specifically defined categories now account for about 65 percent of the patients, compared to 70 percent last year, and for about 72 percent of deaths, compared to 80 percent last year. A list of the ICD-9-CM codes used in each diagnostic category is attached in Table 2 and the list of the comorbidities is attached in Table 3. In the process of making these adjustments in the diagnostic categories, we have also modified the names of five categories to reflect more accurately their composition. These changes are: Neuropsychiatric/Sensory Disease (formerly Opthalmologic Disease), Musculoskeletal/Skin Conditions (formerly Orthopedic Disorders), Renal Failure (formerly Renal Disease), Infectious Disease (formerly Sepsis) and Cerebrovascular Accidents (formerly Stroke).

HOSPITAL COMMENTS

On September 15, 1988, HCFA mailed to each hospital its own mortality information and asked for comments by October 24, 1988. Each hospital's comments, if any, immediately follow its mortality information. The comments are generally reproduced as submitted by the hospital. However, some hospitals returned to HCFA an annotated copy of the information sent on September 15. These annotated materials have not been reproduced in this publication.

even in those instances where they were the only form of comments submitted by a hospital. The reason for not printing these materials is one of privacy or because it would result in duplication of characteristics already corrected by HCFA. Information which would identify or possibly identify patients must be deleted, which would cause any remaining information to be of extremely limited, if any, use. Therefore, we have included a statement to identify instances when these types of materials have not been included. Other hospitals submitted comments that were more lengthy than those which we specified in our September 15 letter would be permitted and, therefore, were edited. As mentioned earlier, it is extremely important that the information presented in the tables be reviewed in concert with the hospital's comments.

In any project of this size, there will be instances where hospitals did not receive the information for comment or did not receive it timely. In fact, many hospitals were sent second copies of their specific information in an expeditious manner to allow every opportunity for review and comment. Therefore, even though it is possible that some of the nonresponding facilities never got the information or did not have adequate time to comment, we expect that these instances were few in number.

INFORMATION SOURCES AND NOTES

It is important to note that this publication is based primarily on Medicare hospital billing information for calendar years 1985, 1986, and 1987. While the principal source for the analysis was the HCFA-maintained MEDPAR file which contains information about each Medicare hospitalization, some of the information about beneficiaries, such as date of death, was obtained from the Social Security Administration. Hospitals submit such information to HCFA's fiscal intermediaries (which handle claims for the care provided to Medicare beneficiaries). The file is updated quarterly. It is estimated that billing information on approximately 95 percent of all Medicare discharges is included in the MEDPAR file within 6 months of the close of the calendar year. Accordingly, our analysis was based on information received through June 10, 1988.

In any large-scale data base such as one dealing with Medicare hospitalizations, there will be gaps or inaccuracies. The fact that the files contain information on about 10 million hospital admissions to nearly 6,000 hospitals for each year provides some assurance that, for purposes of the statistical analysis conducted here, the information which might be missing or inaccurate is such a small portion of the total that it would have almost no impact on the results.

Nonetheless, while we feel that the information used in this analysis is quite thorough and complete, there are a few points which should be kept in mind as the hospital-specific information is being reviewed:

- The information used is billing data and is only as good as the information submitted by hospitals as a part of the payment process. Although there is always a possibility that coding errors are included, for our purposes here, it is assumed that, given the link to payment, hospitals have an incentive to submit bills accurately and promptly.

- The hospitals included in this analysis are short-term, acute care facilities which were identified by their unique provider number. All facilities which have a zero in the third position of their provider number are by definition participating in Medicare as short-term, acute care facilities. All other facilities--those with something other than a zero in the third position of the provider number--were excluded from the analysis. In some cases, hospital names suggest an orientation different from acute care. This does not mean the facility is inappropriately included in the publication.

- There is some information in the file which does not reflect the results of review by Peer Review Organizations (PROs), the entities charged with reviewing hospital services provided to Medicare beneficiaries. For example, one of the functions a PRO performs is to ensure that the diagnosis assigned to a particular case is accurate. The nature of the review and payment system is such that it is possible that PRO changes in diagnosis assignment may not be submitted to HCFA and associated in the MEDPAR file on as timely a basis as other billing information. Obviously, any major changes in diagnosis assignment which are not reflected in the data base would have a bearing on calculation of mortality rates in individual diagnostic categories and may also have a bearing on comorbidities. Some hospitals pointed out instances where the hospital's mortality information did not agree with HCFA's; e.g., different date of death, cases of subsequent admission to another facility, or changes in diagnostic codes. The data base used in this analysis has not been revised to reflect these potential discrepancies. Rather, we are examining all hospital comments to ensure that changes to our data systems and processes can be made when warranted so that future releases will be even more accurate. Readers are urged to review any hospital comments with a specific view toward these types of issues.

- The predictive model used in this effort does not explain all variability in outcome. Most notably, a measure of severity of illness has not been included in the model, and, therefore, the predictive power of the model is less precise than it would be if such a measure had been available. Nonetheless, the information included in this document does legitimately contribute to the body of information about hospital performance.

HOSPITAL CHARACTERISTICS DEFINITIONS

In this year's publication, we have included hospital characteristics information such as bed size, occupancy rate, ownership, staffing, and specialty services. This information was obtained from the American Hospital Association (AHA) 1987 Annual Survey of Hospital Files. Where hospitals did not provide information on a particular item, it has been listed as "not available." This file consists of information voluntarily reported by hospitals to the AHA. In instances where the AHA records contained no information about a hospital included in the analysis, we have presented the most recent information from HCFA's Medicare/Medicaid Automated Certification System (MMACS) Files.

Following are the AHA's definitions of each characteristic found on the hospital's summary page containing the 1986 and 1987 mortality rates and ranges.

SURVEY AND YEAR: AHA 1987	Source = American Hospital Association 1987 Annual Survey of Hospital Files
o Total beds (#):	Number of beds (including sub-acute beds), cribs, and pediatric and neonatal bassinets regularly maintained (set up and staffed for use) for inpatients as of the close of the reporting period; does not include bassinets for normal newborn infants.
o Occupancy rate (%):	Ratio of average daily census to the average number of beds (statistical beds) maintained during the 12-month reporting period. (NOTE: The number of these "statistical beds" may differ from the bed count at the close of the reporting period.)
o Ownership/control:	State government, local government, district/authority, church, private nonprofit, private for profit, or Federal Government
STAFFING:	
o Total number of physicians:	Total active and associate medical staff
o Percent of Board-Certified Specialists	Physicians who have passed an examination given by a medical specialty board and have been certified by that board as a specialist.
o Interns and residents:	Full-time equivalent (FTE) medical residents
o Registered nurses:	Full-time equivalent (FTE) registered nurses
o Licensed practical nurses:	Full-time equivalent (FTE) licensed practical nurses

SPECIALTY SERVICES:

o Shock/trauma unit:	Provides emergency and specialized intensive care to critically injured patients.
o Burn unit:	Provides more intensive care to severely burned patients than the usual acute nursing care provided in medical and surgical units. Beds must be set up and staffed in a unit specifically designated for this service.
o Medical/surgical intensive care:	Provides nursing care to adult and/or pediatric patients of a more intensive nature than the usual medical, surgical, pediatric, and/or psychiatric care on the basis of physicians' orders and approved nursing care plans. Included are medical-surgical, pediatric, and psychiatric (isolation) units. These units are staffed with specially trained nursing personnel and contain monitoring and specialized support equipment for patients who, because of shock, trauma, or life-threatening condi- tions, require intensified, compre- hensive observation and care. These units may also include cardiac care when such services are not provided in a distinct cardiac care unit.
o Cardiac intensive care:	Provides patient care of a more specialized nature than the usual medical and surgical care, on the basis of physicians' orders and approved nursing care plans. The unit is staffed with specially trained nursing personnel and contains monitoring and specialized support or treatment equipment for patients who, because of heart seizure, open-heart surgery, or other life-threatening conditions, require intensified, comprehensive observation and care. May include myocardial infarction, pulmonary care, and heart transplant units. Beds must be set up and staffed in a unit(s) specifically designated for this service.

o Organ transplant service	The necessary staff and equipment to perform the surgical removal of a viable human organ (including kidney) from a donor, either alive or just deceased, and the surgical grafting of the organ to a suitably evaluated and prepared patient.
o Hospice care:	A program providing palliative care, chiefly medical relief of pain and supportive services, to terminally ill patients and assistance to their families in adjusting to the patient's illness and death.

NOTE: Inquiries regarding the AHA data or requests for additional AHA data must be directed to the Director of the American Hospital Association's Hospital Data Center at (312) 280-6000.

Following are HCFA's Medicare/Medicaid Automated Certification System (MMACS) definitions of each characteristic found on the hospital's summary page containing the 1986 and 1987 mortality rates and ranges. Please note that there are no specific definitions of the specialty services in MMACS, and the characteristics that appear are those reported by the hospital.

SURVEY AND YEAR: HCFA 19_	Source = Health Care Financing Administration MMACS Files
o Total beds (#):	Total number of operational beds eligible for Medicare reimbursement.
o Ownership/control:	Church; private; Federal, State, local government, or hospital district or authority; proprietary.
STAFFING:	
o Interns and residents:	Full-time equivalent (FTE) medical residents
o Registered nurses:	Full-time equivalent (FTE) registered nurses
o Licensed practical nurses:	Full-time equivalent (FTE) licensed practical nurses

o	Organ transplant service:	The necessary staff and equipment to perform the surgical removal of a viable human organ (including kidney) from a donor, either alive or just deceased, and the surgical grafting of the organ to a suitably evaluated and prepared patient.
o	Hospice care:	A program providing palliative care, chiefly medical relief of pain and supportive services, to terminally ill patients and assistance to their families in adjusting to the patient's illness and death.

Table 1

STATES BY REGION	LOCATION OF HCFA REGIONAL OFFICE
Connecticut	Boston(I)
Maine	
Massachusetts	
New Hampshire	
Rhode Island	
Vermont	
New Jersey	New York(II)
New York	
Puerto Rico	
Virgin Islands	
Delaware	Philadelphia(III)
District of Columbia	
Maryland	
Pennsylvania	
Virginia	
West Virginia	
Alabama	Atlanta(IV)
Florida	
Georgia	
Kentucky	
Mississippi	
North Carolina	
South Carolina	
Tennessee	
Illinois	Chicago (V)
Indiana	
Michigan	
Minnesota	
Ohio	
Wisconsin	
Arkansas	Dallas (VI)
Louisiana	
New Mexico	
Oklahoma	
Texas	

Table 1 (Cont.)

STATES BY REGION	LOCATION OF HCFA REGIONAL OFFICE
Iowa Kansas Missouri Nebraska	Kansas City(VII)
Colorado Montana North Dakota South Dakota Utah Wyoming	Denver(VIII)
American Samoa/Guam Arizona California Hawaii Nevada	San Francisco(IX)
Alaska Idaho Oregon Washington	Seattle(X)

Table 2

DIAGNOSTIC CATEGORY	ICD-9-CM CODES
High Risk	
Cancer	141, 147, 150-151, 156-159, 162.2-164, 171.5, 171.8, 171.9, 172.8, 179, 180.9 183, 189.0, 191, 192.2, 195, 196.1-196.2, 196.8, 197.0-197.2, 197.4-197.8, 198.0- 198.1, 198.3-198.8, 199-208
Cerebrovascular Accidents	430-432, 433.0, 434, 436
Severe Acute Heart Disease	410, 415, 421.0, 421.9, 423.0-423.2, 427.4-427.5, 441.0, 441.1, 441.3, 441.5, 444.1, 447.2, 785.5
Severe Chronic Heart Disease	397, 398.91, 416, 425.0, 425.2-425.4, 426.89, 428, 429.5-429.9, 441.2, 442.2, 453.2
Gastrointestinal Catastrophes	452, 453.0, 456.0, 456.20, 530.4, 530.8, 531.1-531.2, 531.5-531.6, 532.1-532.2, 532.5-532.6, 533.1-533.2, 533.5-533.6, 534.1-534.2, 534.5-534.6, 551, 557.0, 558.2, 560.0, 560.2, 560.89, 567, 569.83, 570, 571.2, 571.5-571.6, 572.2-572.4, 572.8
Metabolic/ Electrolyte Disorders	250.2-250.3, 260-263, 273, 275.4, 276.0, 276.2, 276.4-276.5, 277.3
Pulmonary Disease	481, 482.0-482.1, 482.3-482.9, 485-486, 500-505, 507, 508.0, 510, 511.1-511.9, 512-516.0, 518.0-518.1, 518.4, 518.5, 519.2-519.3
Renal Failure	584-586
Infectious Disease	018, 027.0, 036, 038, 040, 046-048, 049.0-049.1, 054, 060, 070.0, 070.2, 070.4, 070.6, 112, 116-117, 136.3, 320-320.7
Severe Trauma	806.0-806.1, 807.4, 851-853, 861.0-861.1, 861.3, 864, 868-869, 875.1, 901-902, 933.1, 934, 946.3-946.5, 948.4-948.9, 958.4

Table 2 (cont.)

DIAGNOSTIC CATEGORY	ICD-9-CM CODES
Low-Risk	
Neuropsychiatric/Sensory Disease	290-292, 293.1-293.9, 294-309, 311-319, 331.1-331.9, (excluding 331.7), 332-334 (excluding 334.4), 337 (excluding 337.1), 340, 342-343, 344.2-344.9, 345.0-345.2, 345.4-345.9, 346-347, 348.0, 350-358 (excluding 357.1-357.4 and 358.1), 360-389
Gynecologic Disease	614-627 (excluding 619.1)
Low-Risk Heart Disease	390, 393, 401, 402.00, 402.10, 402.90, 405, 411.1-411.8, 413-414, 417, 420.9, 422.9, 425.1, 426.1-426.7, 426.81, 427.0, 427.2-427.3, 427.6, 427.8-427.9, 429.4, 433.1-433.9, 435, 437.2, 442.0-442.1, 442.3-442.9, 447.0-447.1, 447.3-447.9, 448, 451, 453.1, 453.8-453.9, 454-455, 456.3-456.6, 457.0-457.1, 457.9, 458.0
Gastrointestinal Disease	520-527, 528.2, 528.4-528.9, 529, 530.0-530.3, 530.5-530.7, 530.9, 531.3, 531.7-531.9, 532.3, 532.7-532.9, 533.3, 533.7-533.9, 534.3, 534.7-534.9, 535-536, 537.1-537.2, 537.5-537.6, 537.81, 537.9, 540-543, 550, 552, 558.1, 558.9, 562-566, 568, 569.0-569.2, 569.4-569.6, 569.9, 571.8-571.9, 574.00, 574.10, 574.20, 574.30, 574.40, 574.50, 575.0-575.3, 575.5-575.6, 575.9, 576.0, 576.9, 577.1, 577.9, 579
Urologic Disease	582-583, 588-589, 590.1, 590.8-590.9, 592, 594-595, 596.0, 596.2-596.5, 596.7-596.9, 597-598, 599.1-599.9, 600-606, 607.0-607.1, 607.3-607.9, 608.0-608.3, 608.8-608.9

Table 2 (cont.)

DIAGNOSTIC CATEGORY	ICD-9-CM CODES
Musculoskeletal/Skin Conditions	680-686, 690-698, 700-706, 707.1-707.9, 708-709, 710.0, 710.2-710.9, 714.0-714.4, 714.89, 714.9, 715-744, 746-758, 800.0, 800.5, 801.0, 801.5, 802, 805, 806.2-806.9, 807.00-807.06, 807.1-807.3, 807.5-807.6, 808-819, 822-838, 839.1-839.9, 840-848, 850, 854.00-854.04, 854.06-854.09, 861.2, 862, 867.1, 867.3-867.9, 870-874, 875.0, 876-887, 890-897, 905-929

The number of digits in the code indicated is important in identifying the included diagnoses. If a 3 digit code is given, all diagnoses with the first three digits indicated are included. Thus, if there is a 4th and 5th digit subclassification for the code, diagnoses with these 4th and 5th digits are included.

If a 4 digit code is given, all diagnoses with the first four digits indicated are included. Additionally, if there is a 5th digit subclassification for the code, the diagnoses with the first four digits indicated and any of the 5th digits are included. Codes specified to the 5th digit were defined with greater clinical detail and include only that diagnosis.

Where a range of codes are specified (such as 290-292) all diagnoses through 292 are included. The rules for interpreting what is included in the 3 digit code of 292 are indicated above.

Table 3

COMORBIDITY	ICD-9-CM CODES
Cancer	141-160.9, 162-172.9, 174-208.9
Chronic Liver Disease	571-572.8
Chronic Renal Disease	582-583.9, 585-587
Chronic Cardiovascular Disease	412-414.9, 426-429.1
Chronic Pulmonary Disease	491-493.9, 496
Cerebrovascular Degeneration/ Chronic Psychosis	290-290.9, 294-299.9
Hypertensive Disease	402-405.99
Diabetes	250.01, 250.1-250.9

(A comorbidity is taken to be present if its ICD-9-CM code appears on the bill as any one of the up to four additional diagnoses beyond the principal diagnosis.)

LBJ TROPICAL MEDICAL CENTER

PAGO PAGO, AS 96799

Medicare Hospital Provider Number: 640001

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	177	10	4 - 14	161	6	4 - 13
Cancer	2	50	1 - 93	5	60	9 - 80
Cerebrovascular Accidents	6	17	3 - 68	6	17	3 - 69
Gastrointestinal Catastrophes	0	-	-	2	0	1 - 91
Infectious Disease	8	0	7 - 51	0	-	-
Metabolic/Electrolyte Disorders	1	100	0 -100	2	50	0 - 98
Pulmonary Disease	11	18	4 - 55	19	11	5 - 40
Renal Failure	2	50	0 - 95	0	-	-
Severe Acute Heart Disease	4	25	7 - 81	3	33	6 - 87
Severe Chronic Heart Disease	7	14	2 - 66	4	0	1 - 74
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	13	0	0 -100	15	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	17	6	0 - 93	13	0	0 - 94
Musculoskeletal/Skin Conditions	24	4	0 - 93	25	0	0 - 74
Neuropsychiatric/Sensory Disease	19	0	0 - 96	13	0	0 -100
Urologic Disease	2	0	0 -100	4	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1987

Total Beds (#):	120
Ownership/Control:	State Government

STAFFING

Interns and Residents:	13
Registered Nurses:	19
Licensed Practical Nurses:	114

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

BAPTIST MEDICAL CTR-SCOTTSDALE

8435 E MCDOWELL RD
SCOTTSDALE, AZ 85257

Medicare Hospital Provider Number: 030063

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	153	8	5 - 15	162	9	5 - 15
Cancer	3	0	13 - 85	4	50	4 - 82
Cerebrovascular Accidents	4	0	4 - 70	3	0	9 - 81
Gastrointestinal Catastrophes	1	0	0 - 98	1	100	0 - 99
Infectious Disease	2	0	6 - 90	2	100	4 - 89
Metabolic/Electrolyte Disorders	0	-	-	5	0	1 - 70
Pulmonary Disease	10	40	5 - 63	10	30	5 - 61
Renal Failure	1	100	1 - 97	0	-	-
Severe Acute Heart Disease	2	0	8 - 92	1	0	0 - 97
Severe Chronic Heart Disease	8	13	7 - 60	6	0	3 - 58
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	10	10	0 -100	22	0	0 - 57
Gynecologic Disease	4	0	0 -100	1	0	0 -100
Low-Risk Heart Disease	19	0	0 - 68	20	0	0 - 50
Musculoskeletal/Skin Conditions	22	0	0 - 59	14	7	0 - 88
Neuropsychiatric/Sensory Disease	4	0	0 -100	5	0	0 -100
Urologic Disease	12	0	0 -100	2	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	37
Occupancy Rate (%):	24
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	97
Percent of Physicians Who Are Board Certified Specialists:	39
Interns and Residents:	0
Registered Nurses:	20
Licensed Practical Nurses:	2

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

BENSON HOSP

450 SOUTH OCOTILLO
BENSON,, AZ 85602

Medicare Hospital Provider Number: 030054

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	151	13	9 - 20	131	15	8 - 21
Cancer	1	0	3 - 99	1	100	1 - 97
Cerebrovascular Accidents	9	33	6 - 64	6	17	4 - 68
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	4	25	7 - 81	1	0	0 -100
Metabolic/Electrolyte Disorders	2	0	0 - 97	5	80	11 - 78
Pulmonary Disease	23	22	11 - 47	14	21	13 - 57
Renal Failure	2	100	8 - 93	0	-	-
Severe Acute Heart Disease	7	29	7 - 69	5	0	12 - 67
Severe Chronic Heart Disease	7	0	6 - 52	17	29	8 - 52
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	11	0	0 -100	12	0	0 - 97
Gynecologic Disease	0	-	-	2	0	0 -100
Low-Risk Heart Disease	17	6	0 - 78	14	7	0 - 79
Musculoskeletal/Skin Conditions	10	0	0 - 98	11	9	0 -100
Neuropsychiatric/Sensory Disease	1	0	0 -100	0	-	-
Urologic Disease	5	0	0 -100	6	0	0 - 89

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	22
Occupancy Rate (%):	(not available)
Ownership/Control:	District/Authority

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	(not available)
Burn Unit:	(not available)
Medical/Surgical Intensive Care:	(not available)
Cardiac Intensive Care:	(not available)
Organ Transplant Service:	(not available)
Hospice Care:	(not available)

BULLHEAD COMMUNITY HOSPITAL

2735 SILVER CREEK ROAD
BULLHEAD CITY, AZ 86430

Medicare Hospital Provider Number: 030086

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	723	11	8 - 14	655	12	8 - 14
Cancer	17	59	19 - 64	12	50	16 - 69
Cerebrovascular Accidents	12	25	6 - 56	6	50	9 - 76
Gastrointestinal Catastrophes	7	14	6 - 65	5	40	3 - 78
Infectious Disease	4	0	8 - 72	5	40	13 - 84
Metabolic/Electrolyte Disorders	8	50	7 - 70	7	57	17 - 81
Pulmonary Disease	66	26	11 - 35	51	18	11 - 35
Renal Failure	3	33	12 - 94	3	67	8 - 90
Severe Acute Heart Disease	34	41	19 - 53	18	56	19 - 63
Severe Chronic Heart Disease	42	17	11 - 35	33	24	12 - 43
Severe Trauma	0	-	-	1	0	0 - 99
Gastrointestinal Disease	57	0	1 - 10	84	1	1 - 10
Gynecologic Disease	0	-	-	6	0	0 -100
Low-Risk Heart Disease	88	1	1 - 9	71	3	1 - 13
Musculoskeletal/Skin Conditions	50	4	0 - 26	25	0	0 - 65
Neuropsychiatric/Sensory Disease	4	0	0 -100	13	8	0 -100
Urologic Disease	88	0	0 - 12	74	3	0 - 14

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1987

Total Beds (#):	68
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	34
Licensed Practical Nurses:	2

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

CASA GRANDE REGIONAL MED CTR

1800E FLORENCE BLVD
CASA GRANDE, AZ 85222

Medicare Hospital Provider Number: 030016

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	647	11	8 - 14	712	10	9 - 15
Cancer	11	55	20 - 75	13	69	19 - 67
Cerebrovascular Accidents	26	23	11 - 45	22	23	13 - 49
Gastrointestinal Catastrophes	2	0	2 - 88	2	100	5 - 89
Infectious Disease	4	25	1 - 83	6	17	17 - 79
Metabolic/Electrolyte Disorders	1	0	0 - 98	3	0	9 - 82
Pulmonary Disease	49	22	13 - 39	58	17	17 - 39
Renal Failure	3	33	2 - 88	2	50	6 - 95
Severe Acute Heart Disease	23	26	22 - 59	39	31	21 - 51
Severe Chronic Heart Disease	44	23	10 - 36	39	26	14 - 42
Severe Trauma	0	-	-	1	0	0 - 99
Gastrointestinal Disease	68	3	1 - 14	69	0	1 - 8
Gynecologic Disease	7	0	0 -100	9	0	0 -100
Low-Risk Heart Disease	80	2	1 - 11	77	1	1 - 10
Musculoskeletal/Skin Conditions	57	0	0 - 15	57	4	0 - 41
Neuropsychiatric/Sensory Disease	11	9	0 -100	17	6	0 - 91
Urologic Disease	17	12	0 - 99	43	2	0 - 85

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	100
Occupancy Rate (%):	47
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	29
Percent of Physicians Who Are Board Certified Specialists:	72
Interns and Residents:	0
Registered Nurses:	65
Licensed Practical Nurses:	13

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

CHANDLER REGIONAL HOSPITAL

475 SO DOBSON ROAD
CHANGLER, AZ 85224

Medicare Hospital Provider Number: 030036

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,514	11	7 - 12	908	10	8 - 13
Cancer	46	43	23 - 54	24	54	22 - 62
Cerebrovascular Accidents	53	21	14 - 38	31	19	12 - 42
Gastrointestinal Catastrophes	13	31	10 - 61	7	0	8 - 55
Infectious Disease	13	38	11 - 62	6	33	10 - 76
Metabolic/Electrolyte Disorders	9	33	12 - 70	13	15	9 - 54
Pulmonary Disease	77	19	12 - 33	46	17	9 - 34
Renal Failure	2	50	4 - 93	3	33	4 - 87
Severe Acute Heart Disease	57	54	21 - 48	31	39	23 - 57
Severe Chronic Heart Disease	70	30	12 - 35	51	20	11 - 34
Severe Trauma	1	0	0 - 99	0	-	-
Gastrointestinal Disease	138	3	1 - 9	90	3	1 - 13
Gynecologic Disease	23	0	0 -100	13	0	0 -100
Low-Risk Heart Disease	202	5	1 - 9	109	3	1 - 10
Musculoskeletal/Skin Conditions	97	1	0 - 9	59	3	0 - 30
Neuropsychiatric/Sensory Disease	46	2	0 - 20	33	0	0 - 25
Urologic Disease	113	1	0 - 11	53	6	0 - 36

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1988

Total Beds (#):	120
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	133
Licensed Practical Nurses:	3

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

CHINLE COMPREHENSIVE CARE FACILITY

P O BOX PH
CHINLE, AZ 86503

Medicare Hospital Provider Number: 030084

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	158	10	10 - 20	165	15	9 - 21
Cancer	3	67	5 - 86	4	25	11 - 85
Cerebrovascular Accidents	6	17	4 - 68	4	25	2 - 80
Gastrointestinal Catastrophes	0	-	-	2	0	1 - 91
Infectious Disease	3	0	13 - 85	2	100	7 - 91
Metabolic/Electrolyte Disorders	3	33	2 - 87	11	9	3 - 52
Pulmonary Disease	21	19	14 - 50	14	29	12 - 59
Renal Failure	2	0	3 - 89	3	0	4 - 82
Severe Acute Heart Disease	3	67	7 - 87	4	50	9 - 84
Severe Chronic Heart Disease	6	0	9 - 59	10	30	8 - 62
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	8	13	0 -100	8	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	12	0	0 - 64	4	0	0 -100
Musculoskeletal/Skin Conditions	17	0	0 - 92	10	0	0 -100
Neuropsychiatric/Sensory Disease	4	0	0 -100	6	0	0 -100
Urologic Disease	3	0	0 -100	4	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1986

Total Beds (#):	10
Ownership/Control:	Federal Government

STAFFING

Interns and Residents:	0
Registered Nurses:	57
Licensed Practical Nurses:	12

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

COMMUNITY GENERAL HOSPITAL

500 EAST IOWA
HOLBROOK,, AZ 86025

Medicare Hospital Provider Number: 030091

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	63	10	6 - 22	100	11	5 - 19
Cancer	1	100	2 - 97	1	100	1 - 97
Cerebrovascular Accidents	7	29	5 - 68	2	0	1 - 91
Gastrointestinal Catastrophes	0	-	-	1	0	0 - 98
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	2	0	0 - 95	3	0	0 - 87
Pulmonary Disease	6	0	3 - 58	6	17	9 - 70
Renal Failure	2	100	10 - 95	0	-	-
Severe Acute Heart Disease	2	0	3 - 88	7	71	9 - 71
Severe Chronic Heart Disease	1	100	0 - 98	8	13	3 - 59
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	3	0	0 -100	6	0	0 -100
Gynecologic Disease	3	0	0 -100	1	0	0 -100
Low-Risk Heart Disease	7	0	0 - 99	19	5	0 - 95
Musculoskeletal/Skin Conditions	3	0	0 -100	6	0	0 -100
Neuropsychiatric/Sensory Disease	4	0	0 -100	5	0	0 -100
Urologic Disease	4	0	0 -100	2	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1988

Total Beds (#):	25
Ownership/Control:	Private, For Profit

STAFFING

Interns and Residents:	0
Registered Nurses:	7
Licensed Practical Nurses:	3

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

COMMUNITY HOSP MEDICAL CENTER

6501 NORTH 19TH AVENUE
PHOENIX, AZ 85015

Medicare Hospital Provider Number: 030059

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	231	11	5 - 14	284	6	5 - 12
Cancer	6	33	5 - 73	1	0	2 - 97
Cerebrovascular Accidents	2	100	2 - 88	8	25	6 - 65
Gastrointestinal Catastrophes	1	0	0 - 99	2	50	1 - 92
Infectious Disease	5	40	13 - 84	2	0	8 - 92
Metabolic/Electrolyte Disorders	2	0	1 - 90	4	0	4 - 71
Pulmonary Disease	9	11	2 - 59	15	0	6 - 33
Renal Failure	2	50	3 - 93	1	0	0 - 98
Severe Acute Heart Disease	5	40	7 - 78	2	0	1 - 89
Severe Chronic Heart Disease	13	31	6 - 56	12	17	9 - 54
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	17	6	0 - 98	32	6	0 - 55
Gynecologic Disease	0	-	-	2	0	0 -100
Low-Risk Heart Disease	36	6	0 - 34	44	5	0 - 28
Musculoskeletal/Skin Conditions	29	0	0 - 88	37	0	0 - 21
Neuropsychiatric/Sensory Disease	1	0	0 -100	6	0	0 -100
Urologic Disease	15	0	0 - 99	13	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	55
Occupancy Rate (%):	42
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	147
Percent of Physicians Who Are Board Certified Specialists:	51
Interns and Residents:	2
Registered Nurses:	35
Licensed Practical Nurses:	9

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

COPPER QUEEN COMMUNITY HOSPITAL

101 COLE AVE
BISBEE, AZ 85603

Medicare Hospital Provider Number: 030027

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	222	13	9 - 18	256	14	10 - 19
Cancer	8	88	26 - 77	10	30	16 - 70
Cerebrovascular Accidents	7	43	4 - 71	8	13	8 - 61
Gastrointestinal Catastrophes	4	50	6 - 83	2	50	2 - 92
Infectious Disease	2	50	0 - 95	2	50	4 - 92
Metabolic/Electrolyte Disorders	3	33	2 - 86	5	20	2 - 75
Pulmonary Disease	14	29	9 - 56	18	28	13 - 55
Renal Failure	0	-	-	4	75	13 - 89
Severe Acute Heart Disease	11	36	15 - 68	11	27	21 - 71
Severe Chronic Heart Disease	14	0	12 - 38	18	28	10 - 51
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	26	0	0 - 27	21	5	0 - 44
Gynecologic Disease	0	-	-	5	0	0 -100
Low-Risk Heart Disease	30	3	0 - 30	35	3	1 - 22
Musculoskeletal/Skin Conditions	19	0	0 - 71	15	0	0 - 93
Neuropsychiatric/Sensory Disease	3	0	0 -100	7	0	0 - 99
Urologic Disease	12	0	0 - 99	6	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	49
Occupancy Rate (%):	59
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	11
Percent of Physicians Who Are Board Certified Specialists:	100
Interns and Residents:	0
Registered Nurses:	27
Licensed Practical Nurses:	5

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

DESERT SAMARITAN HOSP & HLTH CTR

1400 SOUTH DOBSON ROAD
MESA, AZ 85202

Medicare Hospital Provider Number: 030065

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	3,591	12	9 - 13	3,574	11	9 - 13
Cancer	194	43	32 - 51	195	44	34 - 54
Cerebrovascular Accidents	120	24	17 - 34	118	23	16 - 33
Gastrointestinal Catastrophes	32	25	19 - 53	27	22	17 - 53
Infectious Disease	26	38	18 - 57	37	32	18 - 51
Metabolic/Electrolyte Disorders	53	30	18 - 48	39	21	15 - 45
Pulmonary Disease	150	24	18 - 35	113	27	15 - 35
Renal Failure	6	33	3 - 78	10	20	9 - 70
Severe Acute Heart Disease	123	43	27 - 47	128	38	27 - 46
Severe Chronic Heart Disease	109	32	12 - 31	108	28	14 - 33
Severe Trauma	6	33	5 - 74	4	0	4 - 72
Gastrointestinal Disease	283	4	1 - 7	290	3	1 - 6
Gynecologic Disease	61	0	0 -100	59	2	0 - 99
Low-Risk Heart Disease	598	4	2 - 5	609	4	2 - 6
Musculoskeletal/Skin Conditions	327	2	1 - 6	332	1	1 - 4
Neuropsychiatric/Sensory Disease	72	3	0 - 17	92	1	1 - 9
Urologic Disease	159	1	0 - 8	138	1	0 - 11

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	349
Occupancy Rate (%):	79
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	326
Percent of Physicians Who Are Board Certified Specialists:	63
Interns and Residents:	0
Registered Nurses:	493
Licensed Practical Nurses:	28

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

EL DORADO MEDICAL CENTER

1400 NORTH WILMOT ROAD
TUCSON, AZ 85712

Medicare Hospital Provider Number: 030080

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,088	8	8 - 12	1,748	9	7 - 12
Cancer	66	41	30 - 57	64	52	29 - 57
Cerebrovascular Accidents	56	14	16 - 37	36	28	16 - 46
Gastrointestinal Catastrophes	14	29	16 - 64	17	29	14 - 59
Infectious Disease	19	21	18 - 57	11	27	16 - 68
Metabolic/Electrolyte Disorders	25	8	10 - 40	11	18	7 - 57
Pulmonary Disease	75	24	18 - 40	49	33	14 - 42
Renal Failure	9	33	18 - 82	3	33	6 - 89
Severe Acute Heart Disease	85	21	27 - 47	59	31	25 - 50
Severe Chronic Heart Disease	74	20	16 - 36	63	32	13 - 37
Severe Trauma	2	50	3 - 92	2	50	1 - 93
Gastrointestinal Disease	164	1	1 - 6	132	2	1 - 7
Gynecologic Disease	30	0	0 -100	25	0	0 -100
Low-Risk Heart Disease	380	2	2 - 5	305	2	2 - 5
Musculoskeletal/Skin Conditions	269	1	1 - 5	213	1	1 - 6
Neuropsychiatric/Sensory Disease	39	5	0 - 38	93	0	0 - 7
Urologic Disease	88	1	0 - 18	75	1	0 - 23

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	146
Occupancy Rate (%):	(not available)
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	(not available)
Burn Unit:	(not available)
Medical/Surgical Intensive Care:	(not available)
Cardiac Intensive Care:	(not available)
Organ Transplant Service:	(not available)
Hospice Care:	(not available)

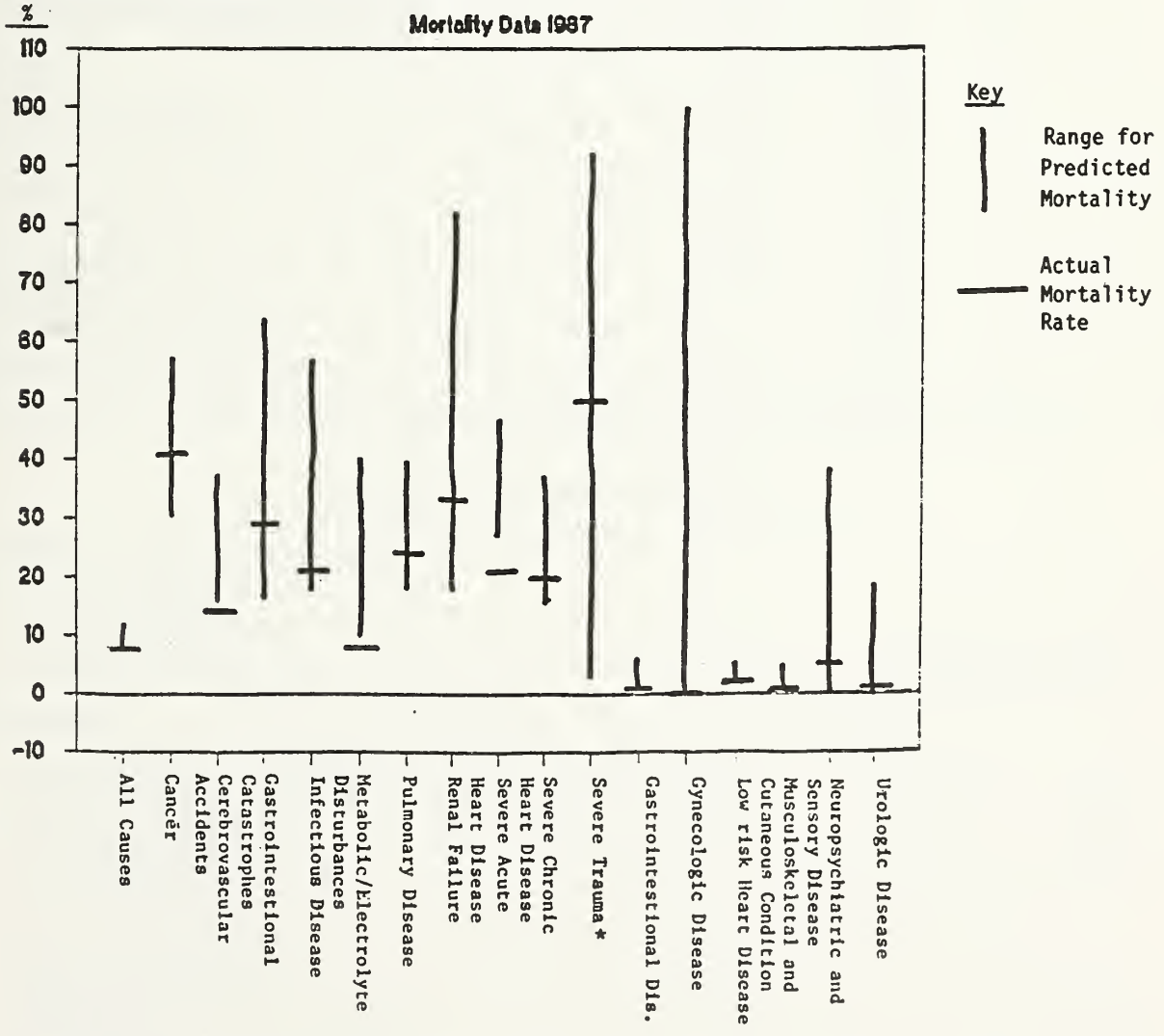
EL DORADO
HOSPITAL
&
MEDICAL
CENTER

October 20, 1988

Mrs. Sandra Kappert
Health Standards and Quality Bureau, HCFA
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland 21207

Dear Ms. Kappert:

We have reviewed the mortality data and found the information for El Dorado Hospital to be accurately recorded. The chart below clearly indicates that El Dorado Hospital was well within or below the expected mortality ranges for the disease categories indicated.



*The mortality rate for severe trauma is based on only two cases in this category. We therefore question the validity of this statistic.

1400 North Wilmot Road
P.O. Box 13070
Tucson, Arizona 85732
Tel. (602) 886-6361

An Affiliate of
HEALTHTRUST
INC. The Hospital Company

Questions regarding the mortality statistics for El Dorado Hospital should be directed to Lynn Slagle in the hospital's administration office.

Sincerely,

Barbara V. Tucci
Assistant Administrator,
Patient Services

FLAGSTAFF HOSP MED CENTER

1200 N BEAVER ST
FLAGSTAFF, AZ 86001

Medicare Hospital Provider Number: 030023

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	824	10	7 - 13	758	8	8 - 13
Cancer	28	36	27 - 64	26	23	33 - 68
Cerebrovascular Accidents	41	34	12 - 41	32	31	14 - 47
Gastrointestinal Catastrophes	7	29	4 - 70	4	50	5 - 82
Infectious Disease	12	33	15 - 67	9	22	17 - 71
Metabolic/Electrolyte Disorders	5	0	3 - 65	3	33	2 - 86
Pulmonary Disease	38	16	10 - 36	43	19	11 - 37
Renal Failure	1	0	1 - 97	4	75	16 - 93
Severe Acute Heart Disease	18	44	13 - 57	26	35	17 - 54
Severe Chronic Heart Disease	32	25	10 - 41	19	11	7 - 40
Severe Trauma	3	67	6 - 87	5	40	2 - 80
Gastrointestinal Disease	65	3	0 - 22	48	0	0 - 12
Gynecologic Disease	5	0	0 -100	10	0	0 -100
Low-Risk Heart Disease	62	0	1 - 9	67	3	0 - 17
Musculoskeletal/Skin Conditions	106	0	0 - 7	109	2	0 - 13
Neuropsychiatric/Sensory Disease	40	2	0 - 62	31	3	0 - 77
Urologic Disease	44	2	0 - 71	44	0	0 - 66

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	110
Occupancy Rate (%):	61
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	80
Percent of Physicians Who Are Board Certified Specialists:	70
Interns and Residents:	0
Registered Nurses:	157
Licensed Practical Nurses:	1

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

FHMC

FLAGSTAFF HEALTH MANAGEMENT CORPORATION
P.O. Box 1268, 1200 North Beaver Street, Flagstaff, Arizona 86002-1268, Telephone: (602) 779-3366

FLAGSTAFF MEDICAL CENTER FOUNDATION FOR FLAGSTAFF MEDICAL CENTER GUARDIAN HEALTH SERVICES

October 21, 1988

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Washington, D.C. 20201

Dear Doctor Roper:

This letter is in response to HCFA's report of mortality data on Medicare patients treated at Flagstaff Medical Center in 1987.

According to the HCFA data, of the Medicare patients admitted to Flagstaff Medical Center who died within 30 days of admission, almost half of these patients died after discharge. It is not possible to determine the accuracy of the patients reported to have died after discharge, as post-discharge information is not included in the patient's medical record. Also, alternative causation for post-discharge deaths must be ruled out in order to arrive at a valid hospital mortality rate.

Overall, Flagstaff Medical Center's actual mortality rate falls well within the range of the predicted mortality rate in each of HCFA's diagnostic categories.

While the current HCFA mortality data are helpful to hospitals and consumers as a way to identify areas for further evaluation, they should not be used as an absolute measure of quality. The time period being studied is still too short to show consistent trends. The lack of an acceptable method for measuring severity of illness and other comorbidities also hampers this effort. The still unknown reliability of the model that HCFA used to construct these data is of major concern. Finally, until the HCFA model is validated, quality judgements can be made only on the basis of a case-by-case review of each patient's medical record.

The Board of Directors, medical staff and hospital staff of Flagstaff Medical Center are committed to the consistent delivery of quality patient care as reflected in the mission and goals statement and exemplified in the comprehensive quality assurance program. This system establishes an ongoing, objective method of routine monitoring and evaluation of all

important aspects of care in order to identify and pursue each opportunity to improve care. Review of all patients deaths is only one aspect of the hospital-wide quality assurance program.

Thank you for this opportunity to comment on the HCFA mortality data.

Sincerely,

Jeff Comer, FACHE
President/CEO

JC/ch

GILA GENERAL HOSPITAL

1100 MONROE ST
GLOBE, AZ 85501

Medicare Hospital Provider Number: 030051

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	218	14	9 - 18	216	12	6 - 16
Cancer	6	67	13 - 78	3	33	8 - 89
Cerebrovascular Accidents	5	0	4 - 63	13	38	9 - 59
Gastrointestinal Catastrophes	5	20	3 - 75	1	100	0 - 97
Infectious Disease	2	50	2 - 92	0	-	-
Metabolic/Electrolyte Disorders	1	0	0 -100	3	33	1 - 90
Pulmonary Disease	7	29	4 - 69	10	10	7 - 53
Renal Failure	2	50	8 - 98	1	0	0 - 97
Severe Acute Heart Disease	12	50	19 - 71	7	29	11 - 72
Severe Chronic Heart Disease	18	11	10 - 44	8	38	5 - 67
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	15	7	0 - 97	14	14	0 -100
Gynecologic Disease	0	-	-	1	0	0 -100
Low-Risk Heart Disease	26	8	0 - 66	27	0	0 - 32
Musculoskeletal/Skin Conditions	21	0	0 - 97	21	0	0 - 77
Neuropsychiatric/Sensory Disease	3	0	0 -100	11	0	0 -100
Urologic Disease	2	0	0 -100	2	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	113
Occupancy Rate (%):	62
Ownership/Control:	Local Government

STAFFING

Total Number of Physicians:	20
Percent of Physicians Who Are Board Certified Specialists:	35
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

GOOD SAMARITAN MED CTR

1033 EAST MCDOWELL RD
PHOENIX, AZ 85006

Medicare Hospital Provider Number: 030002

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	4,887	10	9 - 13	4,873	10	9 - 13
Cancer	244	38	32 - 51	262	39	32 - 50
Cerebrovascular Accidents	119	24	18 - 35	129	19	20 - 35
Gastrointestinal Catastrophes	53	28	17 - 47	52	27	18 - 48
Infectious Disease	41	22	17 - 46	35	40	21 - 56
Metabolic/Electrolyte Disorders	37	22	10 - 42	28	32	6 - 45
Pulmonary Disease	163	23	17 - 34	183	23	19 - 35
Renal Failure	39	31	8 - 57	46	26	6 - 56
Severe Acute Heart Disease	185	27	28 - 45	134	30	27 - 45
Severe Chronic Heart Disease	160	19	16 - 30	157	25	18 - 34
Severe Trauma	10	20	7 - 61	12	33	7 - 62
Gastrointestinal Disease	330	4	1 - 7	287	4	1 - 7
Gynecologic Disease	78	3	0 - 95	77	0	0 -100
Low-Risk Heart Disease	686	4	2 - 6	683	3	2 - 6
Musculoskeletal/Skin Conditions	510	3	1 - 5	495	2	1 - 4
Neuropsychiatric/Sensory Disease	114	3	1 - 10	122	6	0 - 15
Urologic Disease	208	1	0 - 6	212	2	0 - 8

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	648
Occupancy Rate (%):	75
Ownership/Control:	Private, Non-profit

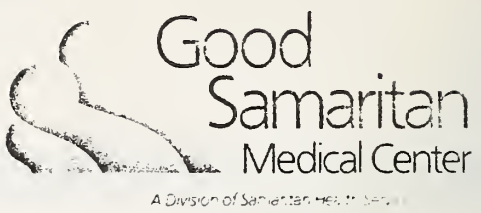
STAFFING

Total Number of Physicians:	627
Percent of Physicians Who Are Board Certified Specialists:	79
Interns and Residents:	138
Registered Nurses:	877
Licensed Practical Nurses:	230

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	Yes
Hospice Care:	No

Provider # 030002



October 14, 1988

To All Interested Parties:

This letter contains additional information regarding the attached mortality data of Medicare patients treated at Good Samaritan Medical Center during 1987.

Good Samaritan Medical Center is a 675 bed tertiary acute care facility located in Phoenix, Arizona. As a full service medical center, we offer care in speciality areas such as trauma, transplant surgery, oncology, rehabilitation medicine, open heart surgery, dialysis and orthopedics. Our hospital discharged a total of 35,389 patients in 1987. Of those patients, 6,248 were Medicare patients. The attached information represents a review of 4,887 of those Medicare patients.

Good Samaritan Medical Center has been proactive in assuring quality of care through an ongoing peer review process. The care of each patient is reviewed concurrently to identify any quality or medical necessity concern. Intervention and education are provided as indicated.

There are currently more than 1500 physicians on the Medical Staff. Sixty-four percent of these physicians are Board Certified Specialists.

The hospital specific mortality data reported by HCFA have been carefully reviewed by the Quality Assurance Committee, the Administration, and the Director of Ouality Resource Management. Our overall percentage of death is well within the range expected for a hospital of this complexity and size. In several areas the mortality rates are even lower than they were in 1986.

Sincerely,

Richard B. Uhrich, M.D.
Senior Vice President/Chief Executive Officer

Robert Westfall, M.D.
Chief of Staff

Richard Perry, M.D.
Chairman, Ouality Assurance Committee

HAVASU REGIONAL HOSPITAL

101 CIVIC CENTER LANE
LAKE HAVASU CITY, AZ 86403

Medicare Hospital Provider Number: 030069

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	805	8	7 - 12	746	8	6 - 12
Cancer	18	33	20 - 63	14	57	24 - 73
Cerebrovascular Accidents	17	6	14 - 43	13	23	11 - 57
Gastrointestinal Catastrophes	14	29	16 - 64	6	67	10 - 77
Infectious Disease	3	67	3 - 86	4	25	2 - 81
Metabolic/Electrolyte Disorders	6	17	4 - 69	6	17	2 - 72
Pulmonary Disease	26	19	10 - 42	42	26	11 - 39
Renal Failure	4	75	13 - 89	2	50	5 - 94
Severe Acute Heart Disease	23	35	16 - 55	21	48	15 - 57
Severe Chronic Heart Disease	20	25	7 - 46	22	14	10 - 41
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	54	0	0 - 14	56	4	0 - 23
Gynecologic Disease	20	0	0 -100	24	0	0 -100
Low-Risk Heart Disease	62	2	1 - 13	51	0	1 - 11
Musculoskeletal/Skin Conditions	100	0	1 - 6	61	0	0 - 11
Neuropsychiatric/Sensory Disease	6	17	0 -100	12	8	0 - 98
Urologic Disease	112	1	0 - 19	90	1	0 - 11

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	84
Occupancy Rate (%):	42
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	32
Percent of Physicians Who Are Board Certified Specialists:	47
Interns and Residents:	0
Registered Nurses:	61
Licensed Practical Nurses:	14

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

HOLY CROSS HOSP HEALTH CTR

1230 TARGET RANGE RD
NOGALES, AZ 85621

Medicare Hospital Provider Number: 030040

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	256	12	9 - 18	205	10	8 - 17
Cancer	11	73	30 - 81	7	43	14 - 77
Cerebrovascular Accidents	8	38	6 - 68	3	67	4 - 86
Gastrointestinal Catastrophes	3	33	4 - 86	3	0	10 - 83
Infectious Disease	5	0	5 - 64	2	50	4 - 93
Metabolic/Electrolyte Disorders	4	25	2 - 80	3	33	0 - 97
Pulmonary Disease	13	15	10 - 53	19	11	13 - 46
Renal Failure	3	100	16 - 91	2	50	3 - 93
Severe Acute Heart Disease	7	14	20 - 75	2	50	8 - 97
Severe Chronic Heart Disease	6	0	4 - 57	10	10	6 - 52
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	19	5	0 - 88	22	0	0 - 73
Gynecologic Disease	7	0	0 -100	5	0	0 -100
Low-Risk Heart Disease	41	2	1 - 17	20	5	0 - 64
Musculoskeletal/Skin Conditions	17	0	0 - 91	15	7	0 - 75
Neuropsychiatric/Sensory Disease	7	0	0 -100	9	0	0 - 99
Urologic Disease	22	0	0 - 98	20	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	81
Occupancy Rate (%):	79
Ownership/Control:	Church

STAFFING

Total Number of Physicians:	15
Percent of Physicians Who Are Board Certified Specialists:	47
Interns and Residents:	0
Registered Nurses:	17
Licensed Practical Nurses:	7

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

HUMANA DESERT VALLEY HOSP

3929 EAST BELL RD
PHOENIX, AZ 85032

Medicare Hospital Provider Number: 030083

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,139	11	8 - 13	1,152	12	9 - 14
Cancer	38	58	24 - 57	38	42	28 - 62
Cerebrovascular Accidents	36	36	13 - 45	41	34	14 - 44
Gastrointestinal Catastrophes	11	9	19 - 62	10	20	13 - 65
Infectious Disease	11	0	15 - 49	17	41	18 - 65
Metabolic/Electrolyte Disorders	10	30	4 - 63	16	25	5 - 52
Pulmonary Disease	83	17	13 - 32	61	20	11 - 34
Renal Failure	7	43	7 - 77	1	0	1 - 97
Severe Acute Heart Disease	42	45	25 - 56	44	39	27 - 56
Severe Chronic Heart Disease	50	28	14 - 39	49	24	15 - 40
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	97	1	1 - 8	104	2	1 - 9
Gynecologic Disease	13	0	0 -100	9	0	0 -100
Low-Risk Heart Disease	151	3	1 - 9	137	4	1 - 10
Musculoskeletal/Skin Conditions	114	4	1 - 11	99	0	1 - 6
Neuropsychiatric/Sensory Disease	17	0	0 - 77	27	0	0 - 83
Urologic Disease	73	0	0 - 12	92	0	0 - 9

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1986

Total Beds (#):	120
Ownership/Control:	Private, For Profit

STAFFING

Interns and Residents:	0
Registered Nurses:	134
Licensed Practical Nurses:	8

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

3929 East Bell Road
Phoenix, Arizona
85032
Telephone 602 867-1881

Humana Hospital
Desert Valley

October 21, 1988

Mrs. Sandra Kappert
Health Standards and Quality Bureau,
HCFA
2-D-2 Meadows East Building
6325 Security Blvd.
Baltimore, Maryland 21207

Dear Mrs. Kappert:

We appreciate the opportunity to comment on the Medicare patient mortality data and the hospital profile characteristics to be published by the Health Care Financing Administration. The information does serve as a part of this hospital's and the health care industry's ongoing quality assurance programs.

HCFA's efforts to provide our hospital specifically, and the health care industry in general, with quality assurance information should be commended.

We also appreciate your public position that even though attempts have been made to further refine the manipulation of the data, this information is limited and cannot be used as a complete measure of quality.

We are very proud of our quality assurance program that is in place at Humana Hospital - Desert Valley; it is well-established and includes routine review by the Joint Commission on Accreditation of Healthcare Organizations and other outside review agencies, ongoing utilization review, quality assurance, in-hospital morbidity and mortality reviews and analyses of all inpatient/emergency department mortality.

The raw numbers that you have provided in this release further assist us in confirming our records and in analyzing Medicare patient mortality.

Mrs. Sandra Kappert
October 20, 1988

The quality assurance staff has reviewed the statistics provided by HCFA. Since some of the deaths attributed to patients in our hospital occurred after discharge, we have been unable to completely validate the data. By category, the number of patients in many cases is too limited to provide a valid statistical analysis. Additionally, predicted ranges have been developed in such a complex and unverifiable way, it would be useless to consider them "standard" ranges.

We also are concerned that the information listed under "Hospital Characteristics" contains inaccurate figures inconsistent with our hospital records, thus we are unable to confirm any of that data.

Following a thorough review of cases in the cancer category I would like to add the following data:

-Average age was 78.

-31% of these patients that died within 30 days of admission, died following discharge from the hospital. These patients had adequate discharge planning and met discharge criteria for alternative level of care. They were referred to Skilled Nursing Facility, Home Care, or Hospice as appropriate for their needs.

-63% of those patients that died within 30 days were "no code" status, indicating the family had requested no heroic measures be taken.

-The patients that died in the hospital were all reviewed as part of the medical staff quality assurance program. No problems were identified and the deaths were not unexpected.

We stand ready to aid our community in reviewing this very complex data and explaining how this type of information is used to affirm and improve the quality of health care services.

Sincerely,

Michael B. Morris
Executive Director

MBM/ac

HUMANA HOSPITAL PHOENIX

1947 E THOMAS RD
PHOENIX, AZ 85016

Medicare Hospital Provider Number: 030008

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,792	9	8 - 13	1,594	11	10 - 14
Cancer	65	40	28 - 55	63	33	28 - 55
Cerebrovascular Accidents	61	38	17 - 42	68	19	20 - 41
Gastrointestinal Catastrophes	14	29	12 - 61	21	29	15 - 57
Infectious Disease	7	29	5 - 69	10	20	18 - 69
Metabolic/Electrolyte Disorders	28	39	12 - 51	12	33	6 - 60
Pulmonary Disease	72	17	15 - 35	71	30	19 - 42
Renal Failure	4	0	14 - 81	7	29	9 - 77
Severe Acute Heart Disease	57	40	27 - 54	64	38	26 - 52
Severe Chronic Heart Disease	68	25	12 - 34	71	21	13 - 34
Severe Trauma	1	0	3 - 98	3	67	7 - 88
Gastrointestinal Disease	119	3	1 - 9	156	4	1 - 9
Gynecologic Disease	22	0	0 -100	23	0	0 -100
Low-Risk Heart Disease	194	3	2 - 7	142	3	1 - 8
Musculoskeletal/Skin Conditions	329	2	1 - 5	207	1	1 - 6
Neuropsychiatric/Sensory Disease	32	3	0 - 49	35	3	0 - 38
Urologic Disease	52	4	0 - 25	37	8	0 - 97

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	314
Occupancy Rate (%):	31
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	0
Registered Nurses:	213
Licensed Practical Nurses:	23

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	Yes
Hospice Care:	No

1947 East Thomas Road
Phoenix, Arizona
85016
Telephone 602 241-7600

Humana Hospital
Phoenix

October 21, 1988

Medicare Provider No.

030008

Mrs. Sandra Kappert
Health Standards and Quality Bureau, HCFA
2-D-2 Meadows Each Building
6325 Security Blvd.
Baltimore, Maryland 21207

Dear Mrs. Kappert:

We appreciate the opportunity to comment on the Medicare patient mortality data and the hospital profile characteristics to be published by the Health Care Financing Administration. The information does serve as a part of this hospital's and the health care industry's ongoing quality assurance programs.

HCFA's efforts to provide our hospital specifically, and the health care industry in general, with quality assurance information should be commended.

We also appreciate your public position that even though attempts have been made to further refine the manipulation of the data, this information is limited and cannot be used as a complete measure of quality.

We are very proud of our quality assurance program in place at Humana Hospital - Phoenix; it is well-established and includes routine review by the Joint Commission on Accreditation of Healthcare Organizations and other outside review agencies, ongoing utilization review, quality assurance, in-hospital morbidity and mortality reviews and analyses of all inpatient mortality.

The raw numbers that you have provided in this release further assist us in confirming our records and in analyzing Medicare patient mortality.

The quality assurance staff has reviewed the statistics provided by HCFA. Since some of the deaths attributed to patients in our hospital occurred after discharge, we have been unable to completely validate the data. By category, the number of patients in many cases is too limited to provide valid statistical analysis. Additionally, predicted ranges have been developed in such a complex and unverifiable way, it would be useless to consider them "standard" ranges.

We also are concerned that the information listed under "Hospital Characteristics" contains inaccurate figures inconsistent with our hospital records, thus we are unable to confirm any of that data.

We stand ready to aid our community in reviewing this very complex data and explaining how this type of information is used to affirm and improve the quality of health care services.

Sincerely,

Michael B. McCallister
Executive Director

/bt

JOHN C LINCOLN HOSP AND HLTH CENTER

9211 N 2ND ST
PHOENIX, AZ 85020

Medicare Hospital Provider Number: 030014

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,441	12	10 - 14	1,874	12	9 - 13
Cancer	85	51	31 - 56	64	47	29 - 56
Cerebrovascular Accidents	110	21	18 - 35	77	27	16 - 38
Gastrointestinal Catastrophes	25	28	21 - 60	16	44	15 - 63
Infectious Disease	23	39	16 - 57	14	14	14 - 56
Metabolic/Electrolyte Disorders	30	37	8 - 47	31	16	11 - 43
Pulmonary Disease	149	22	19 - 36	106	30	15 - 36
Renal Failure	7	43	11 - 80	3	0	10 - 86
Severe Acute Heart Disease	122	37	28 - 48	52	40	24 - 52
Severe Chronic Heart Disease	113	32	15 - 34	72	24	14 - 36
Severe Trauma	6	17	7 - 70	6	50	2 - 77
Gastrointestinal Disease	193	3	1 - 8	161	4	1 - 9
Gynecologic Disease	37	0	0 -100	17	6	0 -100
Low-Risk Heart Disease	248	1	1 - 5	178	4	2 - 9
Musculoskeletal/Skin Conditions	232	2	2 - 6	182	4	1 - 9
Neuropsychiatric/Sensory Disease	43	2	0 - 30	41	5	0 - 60
Urologic Disease	95	0	0 - 9	102	1	0 - 11

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	282
Occupancy Rate (%):	47
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	190
Percent of Physicians Who Are Board Certified Specialists:	76
Interns and Residents:	0
Registered Nurses:	201
Licensed Practical Nurses:	33

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

JOHN C. LINCOLN
HOSPITAL &
HEALTH CENTER
Affiliate of Lincoln Health Resources

9211 North Second Street
Phoenix, AZ 85020-2446
(602) 943-2381

October 21, 1988

Mrs. Sandra Kappert
Health Standards and Quality Bureau
HEALTH CARE FINANCING ADMINISTRATION (HCFA)
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland 21207

Dear Mrs. Kappert:

Relative to the HCFA mortality data which is to be released in December, enclosed is a response from John C. Lincoln Hospital & Health Center, Phoenix, Arizona.

As noted in our response, these statistics alone have very limited value in assessing a hospital's quality of care.

Despite its limitations, we certainly appreciate the opportunity to evaluate and respond to the data prior to its release to the public.

Sincerely,

Dan C. Coleman
President & Chief Executive Officer
Lincoln Health Resources

Enclosure

JOHN C. LINCOLN HOSPITAL & HEALTH CENTER
Phoenix, Arizona

HCFA MORTALITY DATA COMMENTS

Interpretive Remarks

John C. Lincoln Hospital & Health Center is a full service hospital with 282 beds and a Level I Trauma Center. The Trauma Center at Lincoln has served the community well by saving lives that might have been lost in a traditional emergency room setting. Because of the Trauma Center, Lincoln's Emergency Department tends to attract and treat sicker patients.

Over sixty percent of the patients HCFA listed as having died were admitted through Lincoln's Emergency Department.

General Comments

The administration of Lincoln Hospital feels compelled to comment on the validity of the HCFA data as a measurement of the quality of care given by a hospital.

Quality of care given by a particular hospital should not be measured solely on the basis that a patient died within 30 days of being discharged by a variety of circumstances. The care delivered by a hospital is but a part of a patient's total healthcare experience.

Other critical factors which affect clinical outcome are: the patient's personal healthcare regimen; social factors; preventative healthcare measures; patient compliance with treatments; and timeliness of diagnosis, outpatient treatment, and hospital admission.

Data Verification

The actual mortality rate of patients at John C. Lincoln Hospital & Health Center in calendar year 1987 falls within the range for predicted mortality. This is for both an overall basis as well as in each of the 16 diagnostic categories reviewed.

To clarify the Hospital Characteristics portion of the report, Lincoln Hospital is licensed for 282 acute care beds. The figure listed (174 beds) reflects only our general medical/surgical beds. In the area of staffing, our total number of physicians is 800+. Again, the number stated in the report (177) reflects only our Active and Associate Medical Staff. Of that number, 130 are board certified, which results in a percentage of 73% - not the 57% that is indicated.

KENNECOTT HOSPITAL

TILBURY ROAD
KEARNY, AZ 85237

Medicare Hospital Provider Number: 030081

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	57	12	6 - 24	63	5	4 - 17
Cancer	3	100	21 - 95	0	-	-
Cerebrovascular Accidents	1	0	0 - 98	1	0	0 -100
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	6	0	1 - 63	9	11	2 - 58
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	3	67	7 - 87	2	0	6 - 89
Severe Chronic Heart Disease	6	17	4 - 68	3	0	1 - 83
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	9	0	0 -100	9	0	0 - 99
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	8	0	0 - 99	10	10	0 -100
Musculoskeletal/Skin Conditions	5	0	0 -100	1	0	0 -100
Neuropsychiatric/Sensory Disease	2	0	0 -100	0	-	-
Urologic Disease	1	0	0 -100	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1987

Total Beds (#):	20
Ownership/Control:	Private, For Profit

STAFFING

Interns and Residents:	0
Registered Nurses:	16
Licensed Practical Nurses:	1

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

KENNECOTT SAMARITAN HOSPITAL
A Division of Samaritan Health Service
100 TILBURY DRIVE / BOX 368 / KEARNY, ARIZONA 85237 / (602) 363-5573

September 26, 1988

#03-0081

Health Standards and Quality Bureau, HCFA
Attention: Mrs. Sandra Kappert
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland 21207

Dear Mrs. Kappert:

I have no comment with regards to the 1987 Mortality Statistics. I do have two items of correction on the "last discharge" information.

[redacted]

Sincerely,

Michael G. Quirk, P.A., M.S.
Administrator

MGQ/ag

KINGMAN REGIONAL HOSPITAL

3269 STOCKTON HILL RD
KINGMAN, AZ 86401

Medicare Hospital Provider Number: 030055

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,023	13	8 - 14	1,012	12	7 - 12
Cancer	29	55	26 - 63	20	30	19 - 60
Cerebrovascular Accidents	44	36	13 - 42	46	30	15 - 43
Gastrointestinal Catastrophes	12	17	12 - 59	11	18	10 - 60
Infectious Disease	3	0	2 - 80	0	-	-
Metabolic/Electrolyte Disorders	9	44	6 - 67	11	27	11 - 63
Pulmonary Disease	59	19	10 - 33	61	16	13 - 35
Renal Failure	5	0	9 - 72	3	67	4 - 88
Severe Acute Heart Disease	39	64	22 - 52	33	48	20 - 54
Severe Chronic Heart Disease	84	14	13 - 30	53	23	10 - 34
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	81	5	0 - 19	110	6	0 - 18
Gynecologic Disease	13	0	0 -100	9	0	0 -100
Low-Risk Heart Disease	172	2	2 - 7	176	3	1 - 8
Musculoskeletal/Skin Conditions	88	2	0 - 13	101	2	0 - 10
Neuropsychiatric/Sensory Disease	23	4	0 - 48	21	5	0 - 95
Urologic Disease	48	2	0 - 49	58	3	0 - 53

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	83
Occupancy Rate (%):	72
Ownership/Control:	District/Authority

STAFFING

Total Number of Physicians:	20
Percent of Physicians Who Are Board Certified Specialists:	50
Interns and Residents:	0
Registered Nurses:	60
Licensed Practical Nurses:	26

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

KINO COMMUNITY HOSP

2800 E AJO WAY
TUCSON, AZ 85713

Medicare Hospital Provider Number: 030009

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	699	19	12 - 19	655	17	12 - 19
Cancer	14	50	20 - 70	13	54	13 - 64
Cerebrovascular Accidents	22	23	14 - 50	18	33	15 - 58
Gastrointestinal Catastrophes	10	50	13 - 70	14	50	14 - 64
Infectious Disease	32	38	18 - 54	13	38	13 - 65
Metabolic/Electrolyte Disorders	14	14	8 - 51	11	9	6 - 51
Pulmonary Disease	69	41	17 - 42	85	38	18 - 41
Renal Failure	1	0	3 - 99	4	50	12 - 90
Severe Acute Heart Disease	31	48	25 - 60	24	67	24 - 61
Severe Chronic Heart Disease	46	30	14 - 42	28	25	11 - 44
Severe Trauma	1	0	0 - 99	4	50	11 - 87
Gastrointestinal Disease	30	10	0 - 55	24	4	0 - 34
Gynecologic Disease	2	0	0 -100	1	0	0 -100
Low-Risk Heart Disease	54	11	0 - 29	46	4	1 - 19
Musculoskeletal/Skin Conditions	42	7	0 - 61	38	3	1 - 21
Neuropsychiatric/Sensory Disease	50	4	0 - 81	55	2	0 - 54
Urologic Disease	10	0	0 - 66	16	0	0 - 48

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	93
Occupancy Rate (%):	65
Ownership/Control:	Local Government

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

LEWIS R PYLE MEMORIAL HOSP

807 SOUTH PONDEROSA
PAYSON, AZ 85541

Medicare Hospital Provider Number: 030033

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	473	10	9 - 15	483	8	7 - 13
Cancer	18	44	23 - 68	11	73	20 - 71
Cerebrovascular Accidents	15	27	10 - 55	16	6	13 - 44
Gastrointestinal Catastrophes	5	20	9 - 76	5	40	6 - 78
Infectious Disease	8	13	14 - 66	6	67	9 - 75
Metabolic/Electrolyte Disorders	15	33	6 - 56	5	20	2 - 75
Pulmonary Disease	34	21	12 - 41	38	5	11 - 31
Renal Failure	1	0	0 - 99	0	-	-
Severe Acute Heart Disease	10	40	16 - 71	16	44	18 - 64
Severe Chronic Heart Disease	21	14	9 - 42	18	28	9 - 51
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	54	2	1 - 15	73	3	0 - 15
Gynecologic Disease	11	0	0 -100	7	0	0 -100
Low-Risk Heart Disease	76	3	1 - 12	79	3	1 - 12
Musculoskeletal/Skin Conditions	31	3	2 - 22	23	0	0 - 97
Neuropsychiatric/Sensory Disease	12	0	0 - 97	8	0	0 - 86
Urologic Disease	15	0	0 - 98	27	0	0 - 50

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	44
Occupancy Rate (%):	34
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	25
Percent of Physicians Who Are Board Certified Specialists:	64
Interns and Residents:	0
Registered Nurses:	23
Licensed Practical Nurses:	3

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

MARCUS J LAWRENCE MEMORIAL HOSP INC

202 SOUTH WILLARD ST
COTTONWOOD, AZ 86326

Medicare Hospital Provider Number: 030007

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,194	9	9 - 13	1,333	10	8 - 13
Cancer	34	32	22 - 55	39	44	29 - 62
Cerebrovascular Accidents	41	20	15 - 41	34	24	12 - 42
Gastrointestinal Catastrophes	11	36	8 - 63	10	30	10 - 65
Infectious Disease	8	25	6 - 66	10	20	14 - 65
Metabolic/Electrolyte Disorders	12	33	9 - 62	16	25	7 - 53
Pulmonary Disease	92	15	13 - 31	75	17	14 - 35
Renal Failure	4	25	6 - 83	3	100	13 - 89
Severe Acute Heart Disease	57	32	23 - 49	58	36	26 - 52
Severe Chronic Heart Disease	73	19	13 - 33	60	15	12 - 32
Severe Trauma	1	0	0 - 98	1	100	1 - 97
Gastrointestinal Disease	118	2	1 - 9	160	4	1 - 9
Gynecologic Disease	11	0	0 -100	19	0	0 -100
Low-Risk Heart Disease	110	0	2 - 6	112	4	1 - 11
Musculoskeletal/Skin Conditions	125	1	0 - 7	167	2	0 - 8
Neuropsychiatric/Sensory Disease	17	0	0 - 51	33	3	0 - 50
Urologic Disease	58	0	0 - 27	61	0	0 - 15

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	104
Occupancy Rate (%):	42
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	36
Percent of Physicians Who Are Board Certified Specialists:	83
Interns and Residents:	0
Registered Nurses:	75
Licensed Practical Nurses:	12

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	Yes

MARICOPA CO GEN HOSP

2601 E ROOSEVELT ST
PHOENIX, AZ 85008

Medicare Hospital Provider Number: 030022

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,610	20	12 - 17	1,688	21	12 - 17
Cancer	31	48	23 - 59	52	38	24 - 53
Cerebrovascular Accidents	59	27	16 - 40	71	38	16 - 40
Gastrointestinal Catastrophes	38	32	19 - 53	13	54	9 - 62
Infectious Disease	49	39	18 - 49	40	32	19 - 52
Metabolic/Electrolyte Disorders	39	36	6 - 42	49	31	9 - 40
Pulmonary Disease	189	35	17 - 34	195	49	19 - 37
Renal Failure	12	42	15 - 76	12	42	12 - 73
Severe Acute Heart Disease	52	52	26 - 54	73	55	28 - 53
Severe Chronic Heart Disease	78	19	14 - 33	76	20	18 - 37
Severe Trauma	9	22	6 - 63	7	14	10 - 68
Gastrointestinal Disease	68	12	1 - 22	69	10	0 - 25
Gynecologic Disease	6	0	0 -100	7	0	0 -100
Low-Risk Heart Disease	98	7	1 - 16	121	3	1 - 10
Musculoskeletal/Skin Conditions	111	4	1 - 11	86	2	0 - 13
Neuropsychiatric/Sensory Disease	34	3	0 - 61	50	4	0 - 66
Urologic Disease	43	14	0 - 67	48	2	0 - 26

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

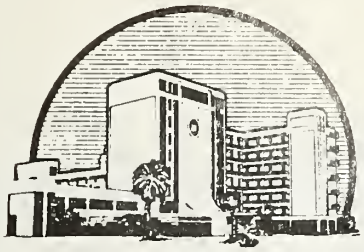
Total Beds (#):	524
Occupancy Rate (%):	57
Ownership/Control:	Local Government

STAFFING

Total Number of Physicians:	455
Percent of Physicians Who Are Board Certified Specialists:	75
Interns and Residents:	166
Registered Nurses:	360
Licensed Practical Nurses:	61

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	Yes
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No



MARICOPA MEDICAL CENTER
2601 EAST ROOSEVELT P.O. BOX 5099 PHOENIX, ARIZONA 85010 267-5011

October 21, 1988

William L. Roper, M.D.
Administrator
c/o Health Standards and Quality Bureau, HCFA
Attn: Mrs. Sandra Kappert
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, MD 21207

Dear Dr. Roper:

In September you wrote our Hospital Director concerning the Health Care Financing Administration's (HCFA) intention once again to release hospital specific mortality information. Minor changes were made in your mathematical model, but, when compared to last year, the results were essentially unchanged for individual hospitals. Likewise, my impression of the utility of this exercise parallels last years. Your data is neither useful to the professional medical community or the lay public.

In 1987 I spent a substantial amount of time analyzing your information. At your request examples of errors in your data were provided. I was chagrined to see your public release of information with those errors uncorrected. This year it appears your intention is again to publish data without using hospital responses to correct the errors it contains. This "damn the torpedoes, full speed ahead" mentality is reckless and costly.

Among the information you intend to release in December are certain "Hospital Characteristics" for Maricopa Medical Center. Your purported source for this information was the annual American Hospital Association (AHA) survey. A brief review of this information left me astonished by the inaccuracies. You indicate our institution has 265 beds and no interns or residents. In fact, we are a 555 bed county hospital, with 9 accredited Graduate Medical Education programs and 192 interns and residents. These errors prompted us to call the AHA. Apparently, they have received many calls from other hospitals inquiring about the figures you published. We were told you were provided the correct data. How you derived the information you intend to publish from the AHA data is a mystery.

The mandate of Congress is clear. Medicare beneficiaries should receive quality medical care with expenditures at a reasonable level. Unfortunately, your highly visible publicity campaign on mortality statistics has

little to do with cost effective quality medical care. It is well known that significant medical expenses are incurred by some Medicare patients in the last few months of life. Perhaps studying the futile application of medical resources would better serve your population. Both medical ethicists and the courts have well articulated positions on this topic. The compassionate development of standards for withholding care would be useful in meeting HCFA's congressional mandate.

Your model does not take into account a patient's underlying health status or severity of illness upon hospital admission. Other HCFA publications acknowledge this oversight. Debilitated patients do not fair as well during hospitalization as otherwise healthy individuals with similar diseases. One factor not included in your model is the health of patients living in nursing homes. The assumption is obvious, patients in nursing homes are generally in poorer health than those living independently. Therefore, a hospital caring for a larger proportion of nursing home patients has "sicker" patients.

Maricopa Medical Center has developed a model to evaluate the impact these "sicker" patients have on hospital mortality. Patients admitted to a hospital from nursing homes as an emergency were 4.2 times more likely to die in the hospital than otherwise similar Medicare patients admitted from home as a non-emergency. Forty-three (43) percent of our Medicare admissions fit this high risk category. Medicare data reveals less than one (<1) percent of all hospital admissions in California come from this group of patients. Clearly, Maricopa Medical Center receives a disproportionate share of nursing home patients. Our model adjusts for these patients at higher risk for death, and places our mortality rates within predicted ranges. By not accounting for debilitated patients, HCFA's statistical model has an unfavorable bias against Arizona's largest public hospital.

An unsuspecting public should not be misled as to the usefulness of your information. Until a more meaningful consensus among national experts is available, your mortality data should be viewed as research in progress. By publishing large amounts of questionable data HCFA is misleading the public.

Sincerely,

Ace M. Hodgin, M.D.
Director, Medical Education

MARYVALE SAMARITAN HOSPITAL

5102 W CAMPBELL AVE
PHOENIX, AZ 85031

Medicare Hospital Provider Number: 030001

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,574	11	9 - 14	1,573	12	10 - 14
Cancer	64	61	34 - 61	64	50	32 - 60
Cerebrovascular Accidents	56	14	14 - 34	44	30	17 - 45
Gastrointestinal Catastrophes	12	17	10 - 57	16	19	12 - 55
Infectious Disease	15	13	17 - 57	9	44	12 - 71
Metabolic/Electrolyte Disorders	24	8	10 - 41	27	26	10 - 47
Pulmonary Disease	91	33	15 - 37	77	18	15 - 36
Renal Failure	7	29	11 - 78	5	60	6 - 82
Severe Acute Heart Disease	64	47	24 - 50	96	44	26 - 48
Severe Chronic Heart Disease	69	19	11 - 31	52	27	11 - 36
Severe Trauma	4	25	4 - 80	6	17	2 - 71
Gastrointestinal Disease	124	3	1 - 11	141	4	1 - 9
Gynecologic Disease	16	0	0 -100	13	0	0 -100
Low-Risk Heart Disease	139	3	1 - 8	160	2	1 - 8
Musculoskeletal/Skin Conditions	155	1	1 - 7	123	1	0 - 7
Neuropsychiatric/Sensory Disease	40	0	0 - 16	37	5	0 - 54
Urologic Disease	65	0	0 - 20	68	0	0 - 13

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	246
Occupancy Rate (%):	58
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	0
Registered Nurses:	162
Licensed Practical Nurses:	6

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

MESA GENERAL HOSP MEDICAL CTR

515 N MESA DR
MESA, AZ 85201

Medicare Hospital Provider Number: 030017

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,073	10	8 - 13	984	9	7 - 12
Cancer	17	47	17 - 63	22	45	21 - 62
Cerebrovascular Accidents	24	17	12 - 44	28	18	13 - 43
Gastrointestinal Catastrophes	18	44	15 - 61	6	33	11 - 78
Infectious Disease	16	56	18 - 65	15	7	18 - 53
Metabolic/Electrolyte Disorders	12	17	8 - 55	13	8	5 - 46
Pulmonary Disease	51	20	11 - 36	43	14	10 - 35
Renal Failure	7	14	9 - 72	3	0	4 - 82
Severe Acute Heart Disease	36	42	21 - 54	27	30	21 - 56
Severe Chronic Heart Disease	61	15	12 - 32	50	28	11 - 37
Severe Trauma	3	0	0 - 88	0	-	-
Gastrointestinal Disease	87	1	1 - 9	96	0	1 - 6
Gynecologic Disease	18	0	0 -100	12	0	0 -100
Low-Risk Heart Disease	158	3	1 - 8	132	3	1 - 9
Musculoskeletal/Skin Conditions	104	1	1 - 8	120	2	0 - 9
Neuropsychiatric/Sensory Disease	24	4	0 - 55	10	10	0 -100
Urologic Disease	48	0	0 - 13	43	5	0 - 84

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	115
Occupancy Rate (%):	52
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	115
Percent of Physicians Who Are Board Certified Specialists:	51
Interns and Residents:	0
Registered Nurses:	97
Licensed Practical Nurses:	8

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

MESA LUTHERAN HOSP

525 W BROWN RD
MESA, AZ 85201

Medicare Hospital Provider Number: 030018

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	3,199	12	11 - 15	3,595	11	10 - 14
Cancer	160	40	33 - 53	164	43	36 - 56
Cerebrovascular Accidents	121	18	18 - 34	133	20	19 - 35
Gastrointestinal Catastrophes	34	21	17 - 50	36	31	20 - 55
Infectious Disease	31	23	23 - 55	37	35	17 - 51
Metabolic/Electrolyte Disorders	30	30	11 - 47	42	19	11 - 41
Pulmonary Disease	174	27	19 - 36	164	24	14 - 31
Renal Failure	8	50	14 - 81	11	36	9 - 72
Severe Acute Heart Disease	156	36	30 - 48	130	30	30 - 49
Severe Chronic Heart Disease	150	27	14 - 30	135	24	14 - 31
Severe Trauma	6	17	7 - 70	9	11	15 - 65
Gastrointestinal Disease	269	4	1 - 8	355	3	1 - 6
Gynecologic Disease	32	0	0 -100	38	0	0 -100
Low-Risk Heart Disease	502	4	1 - 6	467	3	2 - 6
Musculoskeletal/Skin Conditions	275	4	1 - 7	343	1	1 - 5
Neuropsychiatric/Sensory Disease	68	9	0 - 24	87	6	1 - 16
Urologic Disease	94	1	0 - 11	144	0	1 - 5

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	375
Occupancy Rate (%):	51
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	524
Percent of Physicians Who Are Board Certified Specialists:	81
Interns and Residents:	0
Registered Nurses:	314
Licensed Practical Nurses:	30

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

Lutheran Healthcare Network

Mesa Lutheran Hospital
525 West Brown Road
Mesa, Arizona 85201
(602) 834-1211

Medicare Provider
030018

To: Health Standards and Quality Bureau, HCFA
Attention: Mrs.Sandra Kappert
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland 21207

From: Richard Probst, Administrator
Mesa Lutheran Hospital

Claytona Stockdale, Director, Utilization Management
Lutheran Healthcare Network

Re: Mesa Lutheran Hospital
HCFA Mortality Data

This memo is in response to the release of mortality data relevant to Mesa Lutheran Hospital. After receiving the data which includes all Medicare patients discharged in 1987, we researched and arrived at the following conclusions.

DATA VERIFICATION

The data submitted by HCFA indicates a total of 3,199 Medicare patients were discharged from our hospital. Due to the cost to research and validate each of these patients, 5 diagnostic categories were selected: cancer, metabolic/electrolyte disturbances, pulmonary disease, severe acute heart disease and severe chronic heart disease. From each of these categories 100% of the records of the patients who died within 30 days of their admission date were scrutinized. There were 7 items validated: medical record number, patient name, sex, date of admission, date of discharge, date of death, age, and principal diagnosis.

The total patient population for the 5 categories was 668. This figure differs from HCFA's patient population (670) by two. There was one patient who was not treated at our facility in the last three years. The other patient was transferred to another acute hospital for continued care. Thus these patients should not have been included in Mesa Lutheran Hospital data. Other types of data errors include:

Age..... 7 errors
Date of death ..... 6 errors
Date of admission ... 1 error

Of the 668 patients, 193 patients expired during their hospital stay. Of these 193 patients, 152 were designated as "NO CODE".

Twenty-two patients expired within 30 days after discharge. Twelve of those were designated as "NO CODE" while in our facility.

Since our hospital endorses the MEDISGRPS Severity of Illness Index, the 215 cases were correlated with this index. MEDISGRPS is based on "key clinical findings" which places a patient's disease process into a severity of illness range between 0-4. " Zero" severity means the patient is admitted for symptoms with no objective findings or elective procedures. A "one" severity means the patient has few abnormal findings and the likelihood of going into organ failure is remote. A "two" severity means the patient has significant findings and may go into organ failure without treatment. A "three" severity means the patient has severe findings and is very likely to go into organ failure without treatment. A "four" severity means the patient has critical findings indicating that organ failure is present and the patient is very likely to die without treatment.

The severity of illness verified that the patients fell into a range between 0 and 4 with the average being 2.33. Thus these patients had documented clinical findings which could have resulted in death.

INTERPRETIVE REMARKS

Mesa Lutheran Hospital does not fall outside the predicted mortality rate in any of the diagnostic catagories listed by HCFA. In addition, our mortality rate for all causes was only 12%. This value is below the median (13) for the predicted mortality range.

Our hospital's severity of illness index validated that the patients who did expire had clinical findings that could have resulted in death.

Our investigation discovered errors that could affect the overall picture for our hospital's mortality rate. These include errors in age, date of death, date of admission and incorrect patient identification.

In closing, please note that Mesa Lutheran Hospital has a Quality Assurance program that is systematic, planned and ongoing which reviews each hospital death. The program reviews numerous other key factors to protect our patients from a negative outcome. This program also provides a mechanism to improve the quality of care rendered.

Thank you for the chance to address this issue.

Sincerely,

Steve Sacia

Steve Sacia
Asst. Administrator

BS/tb

MIAMI-INSPIRATION HOSPITAL

P O DRAWER M
MIAMI, AZ 85539

Medicare Hospital Provider Number: 030060

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	294	11	7 - 15	296	8	6 - 13
Cancer	6	17	21 - 82	12	58	19 - 71
Cerebrovascular Accidents	8	25	5 - 65	7	29	6 - 69
Gastrointestinal Catastrophes	7	14	9 - 67	4	50	2 - 83
Infectious Disease	2	50	3 - 92	6	33	9 - 76
Metabolic/Electrolyte Disorders	8	13	7 - 61	2	0	0 -100
Pulmonary Disease	18	28	9 - 51	10	10	12 - 57
Renal Failure	1	0	2 - 97	0	-	-
Severe Acute Heart Disease	8	50	13 - 74	6	0	17 - 66
Severe Chronic Heart Disease	17	29	9 - 53	6	0	3 - 57
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	27	0	0 - 30	34	3	0 - 27
Gynecologic Disease	2	0	0 -100	6	0	0 -100
Low-Risk Heart Disease	43	7	0 - 35	53	6	1 - 22
Musculoskeletal/Skin Conditions	41	5	0 - 83	44	2	0 - 61
Neuropsychiatric/Sensory Disease	0	-	-	2	0	0 -100
Urologic Disease	16	0	0 -100	19	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	49
Occupancy Rate (%):	33
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	18
Percent of Physicians Who Are Board Certified Specialists:	44
Interns and Residents:	0
Registered Nurses:	22
Licensed Practical Nurses:	8

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

MT GRAHAM COMMUNITY HOSP

1600 20TH AVE
SAFFORD, AZ 85546

Medicare Hospital Provider Number: 030068

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	328	16	10 - 19	352	14	9 - 17
Cancer	11	73	24 - 75	6	33	12 - 78
Cerebrovascular Accidents	13	38	8 - 58	17	24	13 - 53
Gastrointestinal Catastrophes	6	33	10 - 77	4	75	6 - 80
Infectious Disease	6	17	8 - 71	6	67	11 - 78
Metabolic/Electrolyte Disorders	1	0	0 - 99	2	0	0 - 99
Pulmonary Disease	38	24	12 - 41	36	19	12 - 40
Renal Failure	1	100	1 - 97	1	100	3 - 98
Severe Acute Heart Disease	18	44	16 - 60	18	39	14 - 58
Severe Chronic Heart Disease	29	34	8 - 43	17	24	7 - 49
Severe Trauma	1	0	0 -100	0	-	-
Gastrointestinal Disease	23	0	0 - 59	26	0	0 - 34
Gynecologic Disease	4	0	0 -100	3	0	0 -100
Low-Risk Heart Disease	33	0	0 - 18	47	4	1 - 20
Musculoskeletal/Skin Conditions	23	0	0 - 39	25	8	0 - 76
Neuropsychiatric/Sensory Disease	7	0	0 -100	6	0	0 -100
Urologic Disease	5	0	0 -100	4	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	42
Occupancy Rate (%):	38
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	10
Percent of Physicians Who Are Board Certified Specialists:	70
Interns and Residents:	0
Registered Nurses:	26
Licensed Practical Nurses:	4

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

NAVAPACHE HOSP

P O BOX 1017
LAKESIDE, AZ 85929

Medicare Hospital Provider Number: 030062

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	333	12	8 - 16	352	13	8 - 16
Cancer	5	80	14 - 81	8	50	13 - 74
Cerebrovascular Accidents	12	33	7 - 59	10	50	8 - 65
Gastrointestinal Catastrophes	7	43	7 - 73	2	50	4 - 93
Infectious Disease	4	0	4 - 71	8	63	11 - 72
Metabolic/Electrolyte Disorders	7	0	8 - 55	4	0	2 - 73
Pulmonary Disease	15	7	5 - 40	14	29	10 - 57
Renal Failure	1	100	2 - 98	4	25	8 - 85
Severe Acute Heart Disease	25	48	17 - 55	25	48	18 - 57
Severe Chronic Heart Disease	13	23	6 - 54	12	17	3 - 52
Severe Trauma	1	0	0 - 99	0	-	-
Gastrointestinal Disease	37	0	0 - 23	27	0	0 - 30
Gynecologic Disease	1	0	0 -100	3	0	0 -100
Low-Risk Heart Disease	39	0	1 - 13	52	2	0 - 16
Musculoskeletal/Skin Conditions	28	0	0 - 38	33	0	0 - 53
Neuropsychiatric/Sensory Disease	6	0	0 - 99	10	0	0 - 99
Urologic Disease	12	0	0 - 92	8	0	0 - 88

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	41
Occupancy Rate (%):	56
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	22
Percent of Physicians Who Are Board Certified Specialists:	77
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

NAVAPACHE HOSPITAL
2200 Show Low Lake Rd. ● Show Low, Arizona 85901
(602) 537-4375

October 20, 1988 Medicare #03-0062

Health Care Financing Administration
6325 Security Boulevard
Baltimore, MD 21207

RE: Medicare Hospital Mortality Data

Sir:

The Navapache Hospital mortality information showed actual mortality rates within the range for predicted mortality in all but one category. The mortality rate for renal failure was 100%, using a total of one (1) case. HCFA should revise reporting standards to discard statistically insignificant and misleading sample sizes.

The mortality rate for cancer cases was 80%, with an expected range of 14-81%. The sample size was small, with Navapapache Hospital having only five (5) cases. In addition, all patients were in the endstage of the disease. As a facility that performs no radiation therapy and limited chemotherapy, our cancer cases tend to be endstage complications, thus increasing our internally predicted mortality rate.

Please be advised that Navapache Hospital has 57 licensed beds, not 21 as was reported.

While a review of mortality data as part of the quest for quality in health care is commendable, I question the need to publicize data of this sort. This data can be misleading as it does not explain the population being served or include analysis of statistical relevance.

Sincerely,

M. Victoria Clark
Chief Financial Officer

MVC/dj

cc: John Rivers
Arizona Hospital Association

NORTHERN COCHISE COMM HOSP

901 WEST REX ALLEN DRIVE
WILLCOX, AZ 85643

Medicare Hospital Provider Number: 030041

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	128	16	8 - 22	120	13	4 - 17
Cancer	3	67	8 - 89	0	-	-
Cerebrovascular Accidents	7	14	9 - 65	6	67	3 - 73
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	2	0	7 - 90	0	-	-
Pulmonary Disease	16	25	8 - 52	12	33	3 - 59
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	4	50	10 - 86	4	50	7 - 83
Severe Chronic Heart Disease	11	45	6 - 62	8	50	4 - 68
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	6	0	0 -100	18	0	0 - 83
Gynecologic Disease	2	0	0 -100	2	0	0 -100
Low-Risk Heart Disease	22	0	0 - 41	15	0	0 - 45
Musculoskeletal/Skin Conditions	7	14	0 -100	16	0	0 - 95
Neuropsychiatric/Sensory Disease	9	11	0 - 69	3	0	0 -100
Urologic Disease	0	-	-	4	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	48
Occupancy Rate (%):	60
Ownership/Control:	District/Authority

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

NORTHWEST HOSP

6200 N LA CHOLLA BLVD
TUCSON, AZ 85741

Medicare Hospital Provider Number: 030085

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,440	12	9 - 14	1,177	11	10 - 15
Cancer	33	42	25 - 60	40	55	26 - 59
Cerebrovascular Accidents	54	33	15 - 41	33	24	15 - 46
Gastrointestinal Catastrophes	19	47	17 - 62	8	13	13 - 66
Infectious Disease	8	13	14 - 67	7	43	11 - 75
Metabolic/Electrolyte Disorders	24	33	12 - 53	27	22	16 - 51
Pulmonary Disease	78	26	18 - 40	78	28	14 - 37
Renal Failure	6	83	14 - 80	2	50	7 - 97
Severe Acute Heart Disease	54	48	25 - 53	46	43	29 - 58
Severe Chronic Heart Disease	60	22	16 - 38	42	26	14 - 41
Severe Trauma	3	0	3 - 79	1	0	2 - 98
Gastrointestinal Disease	138	3	1 - 9	134	2	1 - 8
Gynecologic Disease	4	0	0 -100	1	0	0 -100
Low-Risk Heart Disease	117	1	1 - 7	108	5	1 - 12
Musculoskeletal/Skin Conditions	167	2	1 - 7	115	1	1 - 7
Neuropsychiatric/Sensory Disease	30	3	0 - 39	29	7	0 - 37
Urologic Disease	78	1	0 - 19	73	0	0 - 10

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1988

Total Beds (#):	150
Ownership/Control:	Private, For Profit

STAFFING

Interns and Residents:	0
Registered Nurses:	98
Licensed Practical Nurses:	8

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

PAGE HOSPITAL

NORTH NAVAJO DR VISTA AVE BO
PAGE, AZ 86040

Medicare Hospital Provider Number: 030047

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	63	21	6 - 28	69	10	4 - 20
Cancer	2	100	11 - 98	0	-	-
Cerebrovascular Accidents	4	25	4 - 79	1	0	0 - 99
Gastrointestinal Catastrophes	1	100	3 - 98	1	100	0 - 99
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	1	0	0 -100	2	0	0 - 99
Pulmonary Disease	2	50	1 - 93	3	33	0 - 93
Renal Failure	0	-	-	1	100	2 -100
Severe Acute Heart Disease	5	60	9 - 80	6	0	15 - 64
Severe Chronic Heart Disease	4	25	2 - 81	3	33	2 - 86
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	10	0	0 -100	6	0	0 -100
Gynecologic Disease	0	-	-	1	0	0 -100
Low-Risk Heart Disease	6	0	0 - 99	9	0	0 - 96
Musculoskeletal/Skin Conditions	2	0	0 -100	11	9	0 -100
Neuropsychiatric/Sensory Disease	5	0	0 -100	3	33	0 -100
Urologic Disease	0	-	-	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1988

Total Beds (#): 25
Ownership/Control: Private, Non-profit

STAFFING

Interns and Residents: 0
Registered Nurses: 13
Licensed Practical Nurses: 4

SPECIALTY SERVICES

Shock/Trauma Unit: No
Burn Unit: No
Medical/Surgical Intensive Care: No
Cardiac Intensive Care: No
Organ Transplant Service: No
Hospice Care: No

PAGE HOSPITAL
Operated by Samaritan Health Service
NORTH NAVAJO AND VISTA/P.O. BOX 1447/PAGE, ARIZONA 86040/(602) 645-2424

Kevin P. Poorten
Administrator

October 18, 1988

Health Care Financing Administration
Health Standards and Quality Bureau
Meadows East Building, 2-D-2
6325 Security Boulevard
Baltimore, Maryland 21207

Re: Page Hospital #03-0047

Dear Dr. Roper:

This letter is in response to HCFAs report of mortality data on Medicare patients treated at Page Hospital in 1987.

The data used by HCFA indicate that a total of 13 Medicare patients admitted to Page Hospital died within 30 days of admission. Of these, 12 died while still a patient at the hospital, with one death occurring after discharge. It is not possible to comment on the patient reported to have died after discharge, as post discharge information is not included in the patient's medical record. In addition, our records indicate that 148 Medicare admissions occurred during 1987 as compared to the HCFA data of 63. Presumably, the discrepancy reflects multiple admissions of individual beneficiaries to Page Hospital.

In a small, rural community hospital mortality data rates are sometimes misrepresented by the relatively low number of Medicare admissions within a diagnostic category. Under these circumstances one death within any category may greatly skew the mortality rates. Also, it is important to note the essential role that a sole community provider in an area with no long term care or nursing home beds, plays in providing resources and services to the terminally and chronically ill.

Overall, Page Hospital's actual mortality rate falls within the predicated range established by the HCFA model.

While the current HCFA mortality data are helpful to hospitals and consumers as a way to identify areas for further evaluation, they should not be used as an absolute measure of quality. Until an acceptable method of measuring severity of illness and other comorbidities is developed, the HCFA data should not be used as an indicator of quality of care.

The board of directors, medical staff and hospital staff of Page Hospital are committed to the consistent delivery of quality patient care to the people we serve.

Sincerely,

Kevin P. Poorten

Kevin P. Poorten
Administrator

rt

PARKER COMMUNITY HOSPITAL

1149 MOHAVE ROAD P O BOX 1149
PARKER, AZ 85344

Medicare Hospital Provider Number: 030067

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	465	7	8 - 14	388	10	8 - 15
Cancer	11	45	21 - 75	9	56	18 - 76
Cerebrovascular Accidents	14	7	12 - 46	5	20	3 - 74
Gastrointestinal Catastrophes	5	40	3 - 78	4	50	4 - 82
Infectious Disease	2	0	1 - 89	0	-	-
Metabolic/Electrolyte Disorders	6	17	6 - 69	2	0	4 - 88
Pulmonary Disease	17	6	5 - 37	25	16	10 - 42
Renal Failure	2	0	6 - 90	2	100	10 - 95
Severe Acute Heart Disease	17	41	20 - 65	19	32	23 - 64
Severe Chronic Heart Disease	37	14	9 - 34	18	33	9 - 52
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	41	5	0 - 29	46	0	0 - 15
Gynecologic Disease	1	0	0 -100	1	0	0 -100
Low-Risk Heart Disease	97	1	1 - 8	60	2	1 - 12
Musculoskeletal/Skin Conditions	35	3	0 - 46	28	0	0 - 66
Neuropsychiatric/Sensory Disease	15	7	0 - 98	8	0	0 -100
Urologic Disease	2	0	0 -100	9	11	0 - 99

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	39
Occupancy Rate (%):	46
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	7
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	0
Registered Nurses:	24
Licensed Practical Nurses:	6

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

PARKER PHS INDIAN HOSPITAL

RT 1 BOX 12
PARKER, AZ 85344

Medicare Hospital Provider Number: 030079

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	43	5	4 - 20	32	3	4 - 22
Cancer	0	-	-	1	0	2 - 97
Cerebrovascular Accidents	2	0	2 - 89	0	-	-
Gastrointestinal Catastrophes	0	-	-	1	100	1 - 97
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	2	0	3 - 88
Pulmonary Disease	1	0	1 - 97	0	-	-
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	1	0	0 - 98	1	0	0 - 98
Severe Chronic Heart Disease	2	0	0 - 93	1	0	2 - 97
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	0	-	-	1	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	5	0	0 -100	4	0	0 -100
Musculoskeletal/Skin Conditions	6	0	0 -100	3	0	0 -100
Neuropsychiatric/Sensory Disease	0	-	-	2	0	0 -100
Urologic Disease	0	-	-	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1981

Total Beds (#):	20
Ownership/Control:	Federal Government

STAFFING

Interns and Residents:	0
Registered Nurses:	9
Licensed Practical Nurses:	3

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

PHOENIX BAPTIST HOSP AND MED CTR

6025 N 20TH AVE
PHOENIX, AZ 85015

Medicare Hospital Provider Number: 030030

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,608	10	9 - 13	2,917	10	8 - 12
Cancer	93	35	26 - 50	103	31	28 - 50
Cerebrovascular Accidents	85	22	17 - 36	77	25	18 - 39
Gastrointestinal Catastrophes	32	25	17 - 52	17	24	11 - 55
Infectious Disease	36	36	17 - 51	27	37	17 - 56
Metabolic/Electrolyte Disorders	32	31	15 - 51	46	26	9 - 40
Pulmonary Disease	126	21	15 - 33	106	30	15 - 36
Renal Failure	8	25	11 - 75	11	27	7 - 69
Severe Acute Heart Disease	106	27	28 - 47	108	41	29 - 50
Severe Chronic Heart Disease	102	19	14 - 30	127	22	14 - 30
Severe Trauma	6	33	7 - 75	12	8	8 - 52
Gastrointestinal Disease	190	3	1 - 8	246	2	1 - 6
Gynecologic Disease	35	0	0 -100	44	0	0 -100
Low-Risk Heart Disease	361	4	1 - 6	369	5	1 - 7
Musculoskeletal/Skin Conditions	273	2	0 - 6	314	2	1 - 5
Neuropsychiatric/Sensory Disease	66	2	0 - 14	102	3	0 - 14
Urologic Disease	145	0	0 - 6	141	1	0 - 8

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	241
Occupancy Rate (%):	62
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	254
Percent of Physicians Who Are Board Certified Specialists:	80
Interns and Residents:	21
Registered Nurses:	255
Licensed Practical Nurses:	9

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

PHOENIX GEN HOSP

1950 W INDIAN SCHOOL RD
PHOENIX, AZ 85036

Medicare Hospital Provider Number: 030020

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,193	10	7 - 12	1,324	11	8 - 12
Cancer	30	50	27 - 63	33	42	22 - 57
Cerebrovascular Accidents	28	18	13 - 43	37	27	14 - 44
Gastrointestinal Catastrophes	8	38	11 - 72	14	36	13 - 63
Infectious Disease	19	21	15 - 54	15	7	16 - 52
Metabolic/Electrolyte Disorders	12	25	11 - 61	23	26	7 - 47
Pulmonary Disease	55	29	12 - 38	62	29	12 - 37
Renal Failure	6	50	10 - 81	4	25	10 - 87
Severe Acute Heart Disease	27	44	19 - 56	35	49	21 - 54
Severe Chronic Heart Disease	51	25	10 - 35	50	34	11 - 39
Severe Trauma	2	0	1 - 90	2	0	3 - 88
Gastrointestinal Disease	76	3	0 - 16	93	2	2 - 10
Gynecologic Disease	21	0	0 -100	21	0	0 -100
Low-Risk Heart Disease	177	5	1 - 9	222	4	1 - 7
Musculoskeletal/Skin Conditions	117	1	0 - 7	134	1	0 - 7
Neuropsychiatric/Sensory Disease	27	0	0 - 25	46	4	0 - 50
Urologic Disease	80	2	0 - 18	81	0	0 - 10

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	202
Occupancy Rate (%):	44
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	194
Percent of Physicians Who Are Board Certified Specialists:	56
Interns and Residents:	16
Registered Nurses:	124
Licensed Practical Nurses:	9

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

PHOENIX GENERAL HOSPITAL & MEDICAL C

19829 NORTH 27TH AVE
PHOENIX,, AZ 85027

Medicare Hospital Provider Number: 030092

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	69	9	4 - 19	0	-	-
Cancer	3	33	3 - 86	0	-	-
Cerebrovascular Accidents	0	-	-	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	8	13	3 - 60	0	-	-
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	2	50	4 - 93	0	-	-
Severe Chronic Heart Disease	6	0	4 - 57	0	-	-
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	4	0	0 -100	0	-	-
Gynecologic Disease	1	0	0 -100	0	-	-
Low-Risk Heart Disease	9	0	0 - 99	0	-	-
Musculoskeletal/Skin Conditions	6	0	0 -100	0	-	-
Neuropsychiatric/Sensory Disease	1	0	0 -100	0	-	-
Urologic Disease	4	0	0 -100	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1987

Total Beds (#):	101
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	63
Licensed Practical Nurses:	0

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

PHOENIX MEMORIAL HOSPITAL

1201 S SEVENTH AVE
PHOENIX,, AZ 85007

Medicare Hospital Provider Number: 030003

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	918	13	10 - 16	994	11	9 - 15
Cancer	30	50	27 - 64	32	44	25 - 60
Cerebrovascular Accidents	33	24	12 - 42	33	18	17 - 45
Gastrointestinal Catastrophes	9	44	10 - 70	12	33	13 - 65
Infectious Disease	16	63	15 - 62	10	10	18 - 64
Metabolic/Electrolyte Disorders	24	17	9 - 45	15	13	7 - 48
Pulmonary Disease	55	15	12 - 34	51	27	14 - 41
Renal Failure	11	45	13 - 75	5	60	13 - 87
Severe Acute Heart Disease	32	38	24 - 58	31	48	24 - 59
Severe Chronic Heart Disease	44	18	13 - 37	63	14	15 - 34
Severe Trauma	0	-	-	2	0	1 - 90
Gastrointestinal Disease	70	1	1 - 11	62	2	1 - 13
Gynecologic Disease	6	0	0 -100	6	0	0 -100
Low-Risk Heart Disease	98	4	1 - 12	105	2	1 - 9
Musculoskeletal/Skin Conditions	89	2	0 - 12	95	1	0 - 9
Neuropsychiatric/Sensory Disease	20	0	0 - 74	48	8	0 - 41
Urologic Disease	24	4	0 - 92	31	3	0 - 93

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	194
Occupancy Rate (%):	61
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	501
Percent of Physicians Who Are Board Certified Specialists:	67
Interns and Residents:	0
Registered Nurses:	189
Licensed Practical Nurses:	32

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

PHS INDIAN HOSP

P O BOX 98
KEAMS CANYON, AZ 86034

Medicare Hospital Provider Number: 030072

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	56	2	7 - 17	68	4	9 - 21
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	5	0	11 - 67	3	0	6 - 79
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	1	0	0 - 99
Metabolic/Electrolyte Disorders	3	0	0 - 91	1	0	0 - 99
Pulmonary Disease	5	0	1 - 73	15	7	9 - 43
Renal Failure	0	-	-	1	0	0 - 99
Severe Acute Heart Disease	0	-	-	2	0	5 - 89
Severe Chronic Heart Disease	1	100	3 - 98	1	0	1 - 97
Severe Trauma	0	-	-	1	0	0 - 99
Gastrointestinal Disease	0	-	-	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	3	0	0 - 99	4	0	0 -100
Musculoskeletal/Skin Conditions	3	0	0 -100	5	0	0 -100
Neuropsychiatric/Sensory Disease	2	0	0 -100	2	0	0 -100
Urologic Disease	2	0	0 -100	2	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1981

Total Beds (#):	38
Ownership/Control:	Federal Government

STAFFING

Interns and Residents:	0
Registered Nurses:	15
Licensed Practical Nurses:	8

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

PHS INDIAN HOSPITAL
P O BOX 649
FORT DEFIANCE, AZ 86504

Medicare Hospital Provider Number: 030071

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	104	12	8 - 22	146	9	9 - 19
Cancer	4	75	9 - 82	2	50	7 - 95
Cerebrovascular Accidents	4	50	2 - 83	1	0	0 - 99
Gastrointestinal Catastrophes	1	100	1 - 97	0	-	-
Infectious Disease	1	0	0 -100	2	50	5 - 94
Metabolic/Electrolyte Disorders	3	0	1 - 81	2	0	0 - 93
Pulmonary Disease	12	8	12 - 51	21	14	11 - 44
Renal Failure	1	0	2 - 97	0	-	-
Severe Acute Heart Disease	1	0	2 - 97	2	50	4 - 93
Severe Chronic Heart Disease	7	14	5 - 63	12	17	10 - 55
Severe Trauma	0	-	-	1	0	1 - 97
Gastrointestinal Disease	4	0	0 -100	13	0	0 - 48
Gynecologic Disease	0	-	-	2	0	0 -100
Low-Risk Heart Disease	10	0	0 - 92	7	0	0 -100
Musculoskeletal/Skin Conditions	8	0	0 - 95	13	0	0 - 99
Neuropsychiatric/Sensory Disease	3	0	0 -100	4	0	0 - 95
Urologic Disease	1	0	0 -100	1	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1981

Total Beds (#):	70
Ownership/Control:	Federal Government

STAFFING

Interns and Residents:	0
Registered Nurses:	45
Licensed Practical Nurses:	22

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

PHS INDIAN HOSPITAL

TUBA CITY, AZ 86045

Medicare Hospital Provider Number: 030073

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	253	10	8 - 16	244	12	11 - 20
Cancer	2	50	5 - 94	3	67	6 - 87
Cerebrovascular Accidents	6	17	5 - 68	6	17	13 - 74
Gastrointestinal Catastrophes	2	0	6 - 90	1	0	1 - 97
Infectious Disease	5	0	7 - 65	3	100	19 - 92
Metabolic/Electrolyte Disorders	4	50	2 - 83	4	25	1 - 82
Pulmonary Disease	27	26	16 - 50	40	20	21 - 48
Renal Failure	4	0	3 - 75	5	20	8 - 80
Severe Acute Heart Disease	3	0	14 - 86	6	50	10 - 77
Severe Chronic Heart Disease	8	0	9 - 50	4	0	5 - 70
Severe Trauma	1	0	0 - 99	1	0	1 - 97
Gastrointestinal Disease	26	0	0 - 37	24	0	0 - 28
Gynecologic Disease	4	0	0 -100	2	0	0 -100
Low-Risk Heart Disease	10	10	0 - 85	9	11	0 - 99
Musculoskeletal/Skin Conditions	17	0	0 - 59	15	0	0 - 96
Neuropsychiatric/Sensory Disease	46	0	0 - 13	19	5	0 - 95
Urologic Disease	9	0	0 -100	15	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1981

Total Beds (#): 103
Ownership/Control: Federal Government

STAFFING

Interns and Residents: 1
Registered Nurses: 61
Licensed Practical Nurses: 37

SPECIALTY SERVICES

Shock/Trauma Unit: No
Burn Unit: No
Medical/Surgical Intensive Care: Yes
Cardiac Intensive Care: No
Organ Transplant Service: No
Hospice Care: No

PHS INDIAN HOSPITAL

P O BOX 548
SELLS, AZ 85634

Medicare Hospital Provider Number: 030074

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	43	7	4 - 23	58	7	7 - 22
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	0	-	-	2	0	7 - 91
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	1	0	0 - 98
Metabolic/Electrolyte Disorders	1	0	0 - 97	1	0	1 - 97
Pulmonary Disease	2	50	1 - 93	6	50	4 - 74
Renal Failure	0	-	-	1	0	0 - 98
Severe Acute Heart Disease	1	0	0 - 98	0	-	-
Severe Chronic Heart Disease	2	0	0 - 98	3	0	3 - 79
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	2	0	0 -100	4	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	4	0	0 - 90	1	0	0 -100
Musculoskeletal/Skin Conditions	7	0	0 -100	11	0	0 - 94
Neuropsychiatric/Sensory Disease	2	0	0 -100	1	0	0 -100
Urologic Disease	0	-	-	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1981

Total Beds (#):	36
Ownership/Control:	Federal Government

STAFFING

Interns and Residents:	0
Registered Nurses:	22
Licensed Practical Nurses:	13

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

PHS INDIAN HOSPITAL

WHITE RIVER, AZ 85941

Medicare Hospital Provider Number: 030075

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	73	4	8 - 19	73	4	7 - 18
Cancer	0	-	-	3	33	13 - 94
Cerebrovascular Accidents	0	-	-	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	3	0	1 - 84	1	100	2 - 97
Metabolic/Electrolyte Disorders	2	50	1 - 93	0	-	-
Pulmonary Disease	10	10	8 - 53	12	0	7 - 39
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	0	-	-	0	-	-
Severe Chronic Heart Disease	3	0	7 - 80	2	0	0 - 94
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	3	0	0 -100	2	0	0 -100
Gynecologic Disease	1	0	0 -100	0	-	-
Low-Risk Heart Disease	3	0	0 -100	3	0	0 - 94
Musculoskeletal/Skin Conditions	5	0	0 -100	14	0	0 - 88
Neuropsychiatric/Sensory Disease	1	0	0 -100	1	0	0 -100
Urologic Disease	2	0	0 -100	3	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1977

Total Beds (#):	38
Ownership/Control:	Federal Government

STAFFING

Interns and Residents:	0
Registered Nurses:	13
Licensed Practical Nurses:	7

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

PHS Indian Hospital
White River, Arizona

Provider Number: 03-0075

The hospital's comments consisted primarily of annotations to the patient specific information and/or the hospital characteristics generated by the Health Care Financing Administration and provided to the hospital. We did not publish this annotated information.

PHS INDIAN HOSPITAL

SACATON, AZ 85247

Medicare Hospital Provider Number: 030076

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	29	10	3 - 30	39	15	4 - 30
Cancer	0	-	-	1	100	1 -100
Cerebrovascular Accidents	1	0	0 -100	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	2	0	1 - 91
Metabolic/Electrolyte Disorders	0	-	-	2	0	0 - 92
Pulmonary Disease	2	0	0 - 95	2	50	2 - 92
Renal Failure	0	-	-	1	0	2 - 97
Severe Acute Heart Disease	1	100	3 - 99	0	-	-
Severe Chronic Heart Disease	2	50	2 - 92	0	-	-
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	0	-	-	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	0	-	-	2	0	0 -100
Musculoskeletal/Skin Conditions	7	0	0 - 92	7	14	0 -100
Neuropsychiatric/Sensory Disease	1	0	0 -100	1	0	0 -100
Urologic Disease	2	0	0 -100	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1984

Total Beds (#):	100
Ownership/Control:	Federal Government

STAFFING

Interns and Residents:	0
Registered Nurses:	51
Licensed Practical Nurses:	13

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

PHS INDIAN HOSPITAL

SAN CARLOS, AZ 85550

Medicare Hospital Provider Number: 030077

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	28	4	3 - 24	27	7	4 - 29
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	0	-	-	2	0	1 - 91
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	1	100	0 - 97
Metabolic/Electrolyte Disorders	1	0	0 -100	1	100	1 - 97
Pulmonary Disease	3	0	3 - 79	1	0	0 -100
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	1	100	2 - 97	1	0	3 - 98
Severe Chronic Heart Disease	1	0	0 -100	1	0	0 - 99
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	2	0	0 -100	5	0	0 - 95
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	2	0	0 -100	2	0	0 -100
Musculoskeletal/Skin Conditions	1	0	0 -100	0	-	-
Neuropsychiatric/Sensory Disease	1	0	0 -100	1	0	0 -100
Urologic Disease	0	-	-	1	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1981

Total Beds (#):	36
Ownership/Control:	Federal Government

STAFFING

Interns and Residents:	0
Registered Nurses:	15
Licensed Practical Nurses:	5

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

PHS INDIAN MEDICAL CENTER

4212 N 16TH STREET
PHOENIX, AZ 85016

Medicare Hospital Provider Number: 030078

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	185	6	5 - 13	163	11	5 - 16
Cancer	5	0	25 - 80	7	43	14 - 77
Cerebrovascular Accidents	2	50	4 - 93	3	0	2 - 80
Gastrointestinal Catastrophes	2	0	7 - 90	0	-	-
Infectious Disease	1	0	0 - 99	2	0	2 - 89
Metabolic/Electrolyte Disorders	1	0	0 - 98	1	0	0 -100
Pulmonary Disease	8	50	7 - 69	5	20	2 - 75
Renal Failure	0	-	-	2	50	3 - 93
Severe Acute Heart Disease	3	67	6 - 87	4	75	11 - 84
Severe Chronic Heart Disease	7	0	3 - 52	5	40	2 - 78
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	12	0	0 - 90	9	0	0 - 97
Gynecologic Disease	6	0	0 -100	3	0	0 -100
Low-Risk Heart Disease	6	0	0 - 93	4	25	0 - 98
Musculoskeletal/Skin Conditions	20	0	0 - 84	6	17	0 -100
Neuropsychiatric/Sensory Disease	47	0	0 - 21	51	0	0 - 18
Urologic Disease	6	0	0 -100	11	9	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1981

Total Beds (#):	179
Ownership/Control:	Federal Government

STAFFING

Interns and Residents:	12
Registered Nurses:	141
Licensed Practical Nurses:	33

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

PINAL GENERAL HOSP

2010 CENTRAL AVE
FLORENCE, AZ 85232

Medicare Hospital Provider Number: 030049

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	224	9	5 - 14	244	14	6 - 15
Cancer	2	50	6 - 94	3	67	10 - 91
Cerebrovascular Accidents	13	8	13 - 49	8	50	4 - 68
Gastrointestinal Catastrophes	0	-	-	3	0	7 - 80
Infectious Disease	1	0	0 - 98	1	0	0 - 99
Metabolic/Electrolyte Disorders	7	29	2 - 71	13	23	3 - 55
Pulmonary Disease	15	40	4 - 55	17	35	9 - 54
Renal Failure	1	0	2 - 97	4	75	10 - 87
Severe Acute Heart Disease	1	100	3 - 98	3	33	4 - 86
Severe Chronic Heart Disease	9	11	9 - 57	4	0	5 - 70
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	28	4	0 - 52	20	0	0 - 55
Gynecologic Disease	1	0	0 -100	3	0	0 -100
Low-Risk Heart Disease	15	7	0 - 80	24	0	0 - 31
Musculoskeletal/Skin Conditions	21	5	0 - 96	12	0	0 - 99
Neuropsychiatric/Sensory Disease	38	0	0 - 35	37	3	0 - 43
Urologic Disease	7	0	0 -100	4	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	83
Occupancy Rate (%):	47
Ownership/Control:	Local Government

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

SAGE MEMORIAL HOSPITAL

GANADO MISSION P O BOX 457
GANADO, AZ 86505

Medicare Hospital Provider Number: 030004

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	92	7	8 - 19	68	4	7 - 19
Cancer	0	-	-	1	100	1 -100
Cerebrovascular Accidents	4	0	3 - 71	1	0	0 - 98
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	4	25	10 - 84	1	0	0 - 97
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	20	5	11 - 38	13	0	7 - 37
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	1	0	0 - 98	1	100	1 - 97
Severe Chronic Heart Disease	3	0	4 - 79	6	0	3 - 58
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	3	0	0 -100	2	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	6	0	0 -100	4	0	0 -100
Musculoskeletal/Skin Conditions	6	0	0 - 94	5	0	0 -100
Neuropsychiatric/Sensory Disease	3	33	0 -100	3	0	0 -100
Urologic Disease	1	0	0 -100	1	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	39
Occupancy Rate (%):	26
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	9
Percent of Physicians Who Are Board Certified Specialists:	100
Interns and Residents:	0
Registered Nurses:	15
Licensed Practical Nurses:	1

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

SCOTTSDALE MEM HOSP

7400 E OSBORN RD
SCOTTSDALE, AZ 85251

Medicare Hospital Provider Number: 030038

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	3,705	10	8 - 12	3,679	10	9 - 13
Cancer	136	35	28 - 49	143	38	32 - 53
Cerebrovascular Accidents	143	21	17 - 33	124	19	19 - 35
Gastrointestinal Catastrophes	37	35	17 - 51	48	21	24 - 53
Infectious Disease	26	35	20 - 58	27	26	20 - 56
Metabolic/Electrolyte Disorders	20	5	14 - 44	36	25	7 - 41
Pulmonary Disease	131	26	15 - 33	129	19	17 - 35
Renal Failure	21	24	14 - 65	20	40	16 - 71
Severe Acute Heart Disease	163	31	29 - 46	165	33	30 - 47
Severe Chronic Heart Disease	165	22	15 - 29	159	30	17 - 33
Severe Trauma	9	44	2 - 68	19	53	9 - 56
Gastrointestinal Disease	256	3	1 - 7	261	2	1 - 6
Gynecologic Disease	58	0	0 - 78	42	0	0 -100
Low-Risk Heart Disease	583	4	1 - 6	539	2	2 - 5
Musculoskeletal/Skin Conditions	388	2	1 - 5	427	3	1 - 5
Neuropsychiatric/Sensory Disease	69	6	0 - 39	80	1	0 - 11
Urologic Disease	157	0	0 - 6	118	1	0 - 10

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	336
Occupancy Rate (%):	63
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	247
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	18
Registered Nurses:	474
Licensed Practical Nurses:	39

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	Yes
Hospice Care:	No

SCOTTSDALE
MEMORIAL
HOSPITAL

October 21, 1988

Mrs. Sandra Kappert
Health Standards and Quality Bureau, HCFA
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland 21207

Dear Mrs. Kappert:

In response to the Medicare Hospital Mortality Information which was distributed to all hospitals earlier this month, we would like to offer the following comments regarding the hospital characteristics.

First, it is our understanding that the "Hospital Characteristics" that accompanied the mortality information will not necessarily be the hospital characteristics that will be published in December. We have been informed that some of the fields will be different and that HCFA will use the hospital characteristics from the 1987, not the 1986, AHA survey. This being the case, it should be pointed out in the publication that hospitals have not had a chance to review that data for accuracy.

Second, we feel it is important that the hospital characteristics be useful to the public in evaluating the mortality information. In the information that was submitted to hospitals earlier this month, the number of beds, for example, included only medical/surgical beds. It excluded Intensive Care, Critical Care, and Coronary Care beds. Therefore, all of the ratios associated with the number of beds will be skewed and misleading. Errors such as this should be avoided.

Third, we are concerned about the staffing ratios that appeared in the hospital's mortality information distributed earlier this month. For example, the ratios of "Registered Nurses per bed" could be misleading if you rely solely on the information from the AHA Survey. In this survey, the hospital reports the number of full-time and part-time registered nurses. The number of part-time registered nurses may vary considerably from hospital to hospital depending upon the average number of hours worked by the part-time staff. A more meaningful statistic would be to convert the number of part-time registered nurses into FULL-TIME EQUIVALENTS

7400 East Osborn Road / Scottsdale, Arizona 85251 / (602) 994-9616

(FTE's.) However, with the way the AHA survey collects and reports its information, this would be impossible for HCFA to do. Therefore, I feel that particular staffing ratio is potentially misleading.

Fourth, we are also told that the fields under "Specialty Services" may change. It is important that you accurately reflect the services provided at the hospital. For example, in the mortality information submitted earlier this month, Scottsdale Memorial Hospital was reported as not having a Coronary Care Unit. In fact, we have a mixed Special Care Unit of 32 beds which includes Coronary Care, Intensive Care, and Special Cardiovascular Intensive Care beds. It is, therefore, misleading to report that we do not have a Coronary Care Unit.

All of the above points out several potential problems in reporting hospital characteristics. As we stated last year, we support HCFA's attempt to provide information to the general public which they can use to select health care facilities. However, the information provided so far continues to be of questionable value to the general public. We would encourage HCFA to explore carefully which hospital characteristics are reported and whether or not those characteristics are significantly meaningful as modifiers to the mortality information.

Thank you for giving us the opportunity to comment on this matter.

Sincerely,

Peter C. Frick
Vice President-Administrator

/lw

SCOTTSDALE MEM HOSP - NORTH

10450 NORTH 92ND STREET
SCOTTSDALE , AZ 85260

Medicare Hospital Provider Number: 030087

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	854	9	7 - 12	551	10	7 - 13
Cancer	33	27	20 - 52	19	68	26 - 68
Cerebrovascular Accidents	22	23	10 - 47	23	26	11 - 47
Gastrointestinal Catastrophes	6	33	10 - 76	8	13	7 - 61
Infectious Disease	8	50	12 - 74	3	33	5 - 87
Metabolic/Electrolyte Disorders	7	14	4 - 65	8	25	6 - 66
Pulmonary Disease	37	19	13 - 41	21	10	9 - 40
Renal Failure	1	100	3 - 99	1	100	1 -100
Severe Acute Heart Disease	25	28	25 - 61	17	29	18 - 60
Severe Chronic Heart Disease	26	23	11 - 44	18	22	7 - 47
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	65	3	0 - 26	46	2	0 - 35
Gynecologic Disease	16	0	0 -100	0	-	-
Low-Risk Heart Disease	101	1	1 - 8	62	0	1 - 9
Musculoskeletal/Skin Conditions	83	2	0 - 16	78	1	0 - 17
Neuropsychiatric/Sensory Disease	9	0	0 -100	6	0	0 -100
Urologic Disease	57	2	0 - 53	30	0	0 - 93

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1985

Total Beds (#):	107
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	48
Licensed Practical Nurses:	0

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

SIERRA VISTA COMM HOSP

300 EL CAMINO REAL
SIERRA VISTA, AZ 85635

Medicare Hospital Provider Number: 030043

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	582	11	7 - 13	605	9	7 - 13
Cancer	10	60	15 - 70	12	58	20 - 72
Cerebrovascular Accidents	16	31	10 - 54	15	40	8 - 56
Gastrointestinal Catastrophes	6	0	6 - 59	9	22	8 - 64
Infectious Disease	5	20	4 - 74	8	25	7 - 66
Metabolic/Electrolyte Disorders	8	25	6 - 66	9	33	6 - 65
Pulmonary Disease	38	16	12 - 38	27	26	8 - 43
Renal Failure	1	0	0 -100	4	50	12 - 90
Severe Acute Heart Disease	20	45	19 - 61	20	25	19 - 57
Severe Chronic Heart Disease	30	30	8 - 42	21	14	12 - 45
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	52	4	0 - 26	53	0	0 - 12
Gynecologic Disease	9	0	0 -100	4	0	0 -100
Low-Risk Heart Disease	79	5	0 - 17	82	2	1 - 11
Musculoskeletal/Skin Conditions	81	6	0 - 24	69	3	0 - 17
Neuropsychiatric/Sensory Disease	11	0	0 - 93	19	5	0 - 58
Urologic Disease	24	0	0 -100	31	0	0 - 66

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	55
Occupancy Rate (%):	51
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	35
Percent of Physicians Who Are Board Certified Specialists:	80
Interns and Residents:	0
Registered Nurses:	46
Licensed Practical Nurses:	11

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

SOUTHEAST ARIZONA MEDICAL CENTER

RURAL ROUTE 1
DOUGLAS, AZ 85607

Medicare Hospital Provider Number: 030034

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	282	15	9 - 18	302	12	9 - 17
Cancer	6	67	10 - 76	4	50	8 - 84
Cerebrovascular Accidents	10	50	11 - 67	5	40	2 - 78
Gastrointestinal Catastrophes	2	0	1 - 91	3	33	2 - 87
Infectious Disease	6	17	9 - 71	8	50	14 - 75
Metabolic/Electrolyte Disorders	5	20	1 - 82	6	33	0 - 87
Pulmonary Disease	38	21	13 - 41	27	22	17 - 50
Renal Failure	0	-	-	1	0	1 -100
Severe Acute Heart Disease	9	67	14 - 70	13	38	20 - 70
Severe Chronic Heart Disease	18	28	7 - 49	12	8	7 - 47
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	32	3	0 - 40	54	2	0 - 16
Gynecologic Disease	3	0	0 -100	7	0	0 -100
Low-Risk Heart Disease	26	8	0 - 42	21	5	0 - 71
Musculoskeletal/Skin Conditions	20	0	0 - 74	27	0	0 - 33
Neuropsychiatric/Sensory Disease	0	-	-	4	0	0 -100
Urologic Disease	8	0	0 -100	6	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1986

Total Beds (#):	122
Ownership/Control:	Local Government

STAFFING

Interns and Residents:	0
Registered Nurses:	29
Licensed Practical Nurses:	7

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

SOUTHEAST ARIZONA MEDICAL CENTER

RURAL ROUTE 1 — BOX 30 — TELEPHONE 602/364-7931
DOUGLAS, ARIZONA 85607

September 28, 1988

William L. Roper, M.D.
Health Care Financial Administration
Washington, D.C. 20201

Dear Dr. Roper;

Thank you for this opportunity to respond to the release of data on hospital mortality rates for the year of 1987. Southeast Arizona Medical Center is a healthcare facility licensed for seventy-nine (79) acute care beds and forty-three (43) long term care beds which is located in the southeastern part of Arizona. Our case mix includes many patients with major medical and surgical illnesses.

At this hospital, mortality review is an ongoing process of the quality assurance program and our peer review activities are conducted monthly in the medical and surgical staff committee meetings. An intensive review of the charts of every patient who expires at this facility is conducted by members of our medical staff in conjunction with administration and appropriate nursing personnel.

During the mortality chart review the overall plan of care is scrutinized by our medical staff and any questions regarding the medical management of the patient are directed to the attending physician. Through this mechanism we feel we are addressing any quality problems which may arise immediately.

The mortality data for our hospital has been carefully reviewed by hospital administration, the chief of staff, and the physician advisor for the Professional Activities Committee and the Director of Quality Assurance.

Our monitoring systems provide a continuous feedback mechanism which meets and exceeds quality care standards, but we plan to continue refining our systems to provide the highest level of care to the citizens of our hospital service area.

Once again thank you for this opportunity to respond to this data.

Sincerely,

Robert C. Benjamin
Administrator

Thomas Griffin, M.D.
Chief of Staff

ST JOSEPHS HOSP

350 NORTH WILMOT ROAD
TUCSON, AZ 85711

Medicare Hospital Provider Number: 030011

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,715	11	9 - 13	2,889	11	9 - 13
Cancer	77	42	27 - 52	98	36	29 - 52
Cerebrovascular Accidents	106	25	19 - 37	76	37	18 - 41
Gastrointestinal Catastrophes	32	31	17 - 53	26	12	17 - 49
Infectious Disease	21	43	17 - 59	26	23	19 - 55
Metabolic/Electrolyte Disorders	29	31	10 - 47	30	33	9 - 46
Pulmonary Disease	114	25	17 - 36	136	32	17 - 36
Renal Failure	8	38	14 - 79	11	64	21 - 83
Severe Acute Heart Disease	107	36	28 - 48	108	42	29 - 50
Severe Chronic Heart Disease	107	21	15 - 32	104	17	16 - 33
Severe Trauma	5	0	4 - 65	9	0	9 - 51
Gastrointestinal Disease	241	2	1 - 6	275	4	1 - 7
Gynecologic Disease	35	0	0 -100	42	0	0 - 93
Low-Risk Heart Disease	238	6	1 - 9	260	3	2 - 7
Musculoskeletal/Skin Conditions	318	3	1 - 6	334	1	1 - 5
Neuropsychiatric/Sensory Disease	209	0	1 - 6	227	4	0 - 8
Urologic Disease	118	3	0 - 16	118	0	0 - 6

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	282
Occupancy Rate (%):	61
Ownership/Control:	Church

STAFFING

Total Number of Physicians:	329
Percent of Physicians Who Are Board Certified Specialists:	86
Interns and Residents:	0
Registered Nurses:	187
Licensed Practical Nurses:	17

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	Yes
Hospice Care:	No

ST JOSEPHS HOSP MED CTR

350 W THOMAS RD
PHOENIX, AZ 85013

Medicare Hospital Provider Number: 030024

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	4,377	9	8 - 12	4,775	9	9 - 13
Cancer	248	35	33 - 51	288	39	34 - 53
Cerebrovascular Accidents	197	17	18 - 31	196	18	19 - 32
Gastrointestinal Catastrophes	39	41	19 - 54	49	22	22 - 52
Infectious Disease	29	34	22 - 59	26	46	20 - 60
Metabolic/Electrolyte Disorders	34	26	8 - 43	41	20	10 - 40
Pulmonary Disease	120	14	17 - 33	120	22	15 - 34
Renal Failure	13	31	5 - 66	14	36	12 - 71
Severe Acute Heart Disease	108	36	26 - 46	131	34	29 - 48
Severe Chronic Heart Disease	143	20	15 - 30	164	18	17 - 31
Severe Trauma	24	21	9 - 48	19	16	8 - 49
Gastrointestinal Disease	220	2	1 - 6	310	2	1 - 6
Gynecologic Disease	64	0	0 -100	63	0	0 -100
Low-Risk Heart Disease	512	4	2 - 6	603	4	2 - 6
Musculoskeletal/Skin Conditions	595	3	1 - 5	570	1	1 - 4
Neuropsychiatric/Sensory Disease	196	1	1 - 6	223	1	1 - 6
Urologic Disease	270	1	0 - 7	332	1	0 - 6

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	620
Occupancy Rate (%):	83
Ownership/Control:	Church

STAFFING

Total Number of Physicians:	495
Percent of Physicians Who Are Board Certified Specialists:	85
Interns and Residents:	103
Registered Nurses:	1,000
Licensed Practical Nurses:	161

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	Yes
Hospice Care:	No

ST LUKES BEHAVIORIAL HLTH CTR

PO BOX 13609
PHOENIX, AZ 85006

Medicare Hospital Provider Number: 030082

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	4	0	0 -100	24	0	0 - 56
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	0	-	-	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	0	-	-	0	-	-
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	0	-	-	0	-	-
Severe Chronic Heart Disease	0	-	-	0	-	-
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	0	-	-	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	0	-	-	0	-	-
Musculoskeletal/Skin Conditions	0	-	-	10	0	0 -100
Neuropsychiatric/Sensory Disease	4	0	0 -100	11	0	0 -100
Urologic Disease	0	-	-	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1985

Total Beds (#):	170
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	97
Licensed Practical Nurses:	0

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

ST MARY'S HOSP HEALTH CTR

1601 W ST MARY'S RD
TUCSON, AZ 85745

Medicare Hospital Provider Number: 030010

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	4,012	12	10 - 14	3,956	11	10 - 14
Cancer	140	46	31 - 52	141	38	30 - 52
Cerebrovascular Accidents	144	26	17 - 33	140	23	19 - 35
Gastrointestinal Catastrophes	35	34	16 - 52	35	23	20 - 53
Infectious Disease	67	34	25 - 52	65	35	24 - 52
Metabolic/Electrolyte Disorders	49	29	11 - 42	50	20	15 - 43
Pulmonary Disease	157	22	19 - 36	161	23	18 - 35
Renal Failure	17	35	14 - 69	15	40	14 - 72
Severe Acute Heart Disease	213	34	29 - 45	179	32	29 - 46
Severe Chronic Heart Disease	177	22	17 - 31	155	21	17 - 32
Severe Trauma	18	28	12 - 56	9	44	6 - 68
Gastrointestinal Disease	277	3	1 - 7	306	3	1 - 6
Gynecologic Disease	7	0	0 -100	15	0	0 -100
Low-Risk Heart Disease	551	4	2 - 6	443	5	2 - 7
Musculoskeletal/Skin Conditions	487	2	1 - 5	499	2	1 - 5
Neuropsychiatric/Sensory Disease	107	4	1 - 11	99	3	0 - 12
Urologic Disease	179	2	1 - 8	184	1	0 - 6

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	326
Occupancy Rate (%):	82
Ownership/Control:	Church

STAFFING

Total Number of Physicians:	251
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	0
Registered Nurses:	427
Licensed Practical Nurses:	39

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	Yes
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	Yes
Hospice Care:	No

ST. LUKE'S MEDICAL CENTER

1800 EAST VAN BUREN
PHOENIX,, AZ 85006

Medicare Hospital Provider Number: 030037

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,640	6	6 - 10	1,822	6	5 - 9
Cancer	35	29	23 - 55	34	26	19 - 51
Cerebrovascular Accidents	34	24	14 - 44	32	25	12 - 43
Gastrointestinal Catastrophes	7	43	10 - 74	11	27	15 - 67
Infectious Disease	6	17	13 - 75	3	33	9 - 90
Metabolic/Electrolyte Disorders	13	15	12 - 57	9	22	4 - 62
Pulmonary Disease	47	26	14 - 41	30	13	14 - 42
Renal Failure	7	57	16 - 85	0	-	-
Severe Acute Heart Disease	29	28	22 - 55	50	22	25 - 50
Severe Chronic Heart Disease	49	20	11 - 35	49	22	12 - 37
Severe Trauma	1	0	2 - 97	4	75	8 - 82
Gastrointestinal Disease	75	0	1 - 8	79	3	1 - 12
Gynecologic Disease	2	0	0 -100	9	0	0 -100
Low-Risk Heart Disease	308	4	2 - 7	301	4	2 - 7
Musculoskeletal/Skin Conditions	379	1	1 - 4	459	2	0 - 4
Neuropsychiatric/Sensory Disease	141	1	1 - 7	203	0	1 - 5
Urologic Disease	14	0	0 - 98	16	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1987

Total Beds (#):	221
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	233
Licensed Practical Nurses:	5

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	Yes
Hospice Care:	No

St. Luke's Medical Center

A [illegible]

Prov. #030037

October 18, 1988

Health Standards and Quality Bureau
HCFA
ATT: Sandra Kappert
2D2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland 21207

RE: MORTALITY INFORMATION PACKET

Dear Ms. Kappert:

We are in receipt of a letter from the American Hospital Association referring to the Mortality Information Packet that was being mailed out to hospitals. The letter states that we should have received this packet by the week of September 16, 1988, for return within one month. This packet has never been received at this facility.

Your regional office was promptly notified of this and is in the process of running the data for overnight mailing to our facility. We were also informed that the deadline for any comments on this data is October 24, 1988.

We will make every effort to meet this deadline. In the event we do not, your office has informed us this letter will be published along with the data being released to the public regarding this facility.

Mary Starmann-Harrison

Mary Starmann-Harrison
Chief Executive Officer

MSH:fad

TEMPE ST. LUKE'S HOSPITAL

1500 S MILL AVE
TEMPE, AZ 85281

Medicare Hospital Provider Number: 030019

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	529	11	9 - 15	550	12	8 - 15
Cancer	17	41	24 - 69	18	61	27 - 71
Cerebrovascular Accidents	33	21	15 - 44	25	24	12 - 46
Gastrointestinal Catastrophes	7	43	7 - 72	4	25	5 - 80
Infectious Disease	8	25	10 - 68	8	38	9 - 70
Metabolic/Electrolyte Disorders	3	0	1 - 82	8	50	6 - 69
Pulmonary Disease	23	13	13 - 44	24	29	7 - 45
Renal Failure	1	100	2 - 97	2	100	9 - 93
Severe Acute Heart Disease	21	38	18 - 59	19	58	16 - 59
Severe Chronic Heart Disease	33	21	8 - 38	32	25	12 - 43
Severe Trauma	1	100	1 - 97	0	-	-
Gastrointestinal Disease	37	3	1 - 21	46	0	1 - 12
Gynecologic Disease	2	0	0 -100	1	0	0 -100
Low-Risk Heart Disease	57	0	1 - 9	64	2	1 - 12
Musculoskeletal/Skin Conditions	33	0	0 - 19	43	0	0 - 17
Neuropsychiatric/Sensory Disease	34	3	0 - 76	41	0	0 - 17
Urologic Disease	19	0	0 -100	10	0	0 - 87

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1988

Total Beds (#):	110
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	73
Licensed Practical Nurses:	5

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

Tempe
St. Luke's Hospital
A MEMBER OF ST. LUKE'S HEALTH SYSTEM

October 20, 1988

Health Standards and Quality Bureau, HCFA
Attnetion: Mrs. Sandra Kappert
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland 21207

Dear Mrs. Kappert:

I have reviewed and verified the Medicare Hospital Mortality Information for Tempe St. Luke's Hospital.

The only information that is incorrect on this report is that you show that we have a specialty service for ACUTE RENAL DIALYSIS UNIT. We do not have this specialty unit at our facility. We do provide hemodialysis with portable units with contracted services and contracted nurses.

Sincerely,

Dale K. Zimmerman, RRA

Dale K. Zimmerman, RRA
Director Medical Records/QA/UM

dkz

THUNDERBIRD SAMARITAN HOSP & HLTH CT

5555 WEST THUNDERBIRD ROAD
GLENDALE, AZ 85306

Medicare Hospital Provider Number: 030089

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,920	14	10 - 14	1,649	12	9 - 14
Cancer	59	46	28 - 57	72	60	30 - 56
Cerebrovascular Accidents	93	20	18 - 36	60	28	16 - 40
Gastrointestinal Catastrophes	14	21	13 - 59	12	17	13 - 59
Infectious Disease	23	52	17 - 59	13	23	15 - 62
Metabolic/Electrolyte Disorders	27	22	7 - 44	20	20	7 - 48
Pulmonary Disease	95	32	18 - 39	85	28	18 - 39
Renal Failure	6	50	6 - 79	3	33	7 - 90
Severe Acute Heart Disease	84	46	25 - 48	68	49	27 - 52
Severe Chronic Heart Disease	106	27	14 - 32	57	14	15 - 35
Severe Trauma	3	33	1 - 88	2	50	6 - 94
Gastrointestinal Disease	135	1	1 - 6	138	4	1 - 11
Gynecologic Disease	37	0	0 -100	27	0	0 -100
Low-Risk Heart Disease	222	6	1 - 9	205	1	2 - 6
Musculoskeletal/Skin Conditions	126	5	0 - 13	134	2	1 - 8
Neuropsychiatric/Sensory Disease	34	0	0 - 35	26	8	0 - 92
Urologic Disease	79	3	0 - 16	79	0	0 - 11

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1988

Total Beds (#):	240
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	248
Licensed Practical Nurses:	21

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	Yes

TUCSON GENERAL HOSPITAL

3838 N CAMPBELL AVE
TUCSON, AZ 85719

Medicare Hospital Provider Number: 030035

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,710	9	8 - 12	1,653	9	8 - 13
Cancer	41	44	23 - 55	41	49	27 - 59
Cerebrovascular Accidents	71	18	17 - 36	68	10	19 - 36
Gastrointestinal Catastrophes	15	13	19 - 59	8	50	17 - 78
Infectious Disease	25	28	18 - 55	13	38	15 - 66
Metabolic/Electrolyte Disorders	11	9	4 - 51	24	29	12 - 51
Pulmonary Disease	55	25	16 - 41	55	24	16 - 41
Renal Failure	4	50	8 - 86	3	33	6 - 89
Severe Acute Heart Disease	54	37	24 - 51	64	38	26 - 51
Severe Chronic Heart Disease	86	22	15 - 34	83	22	15 - 34
Severe Trauma	0	-	-	3	0	4 - 79
Gastrointestinal Disease	160	1	1 - 6	162	3	1 - 8
Gynecologic Disease	30	0	0 -100	18	0	0 -100
Low-Risk Heart Disease	233	4	1 - 8	218	2	2 - 6
Musculoskeletal/Skin Conditions	185	2	0 - 8	162	1	1 - 5
Neuropsychiatric/Sensory Disease	41	5	0 - 43	46	2	0 - 23
Urologic Disease	110	3	0 - 15	96	0	0 - 8

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	220
Occupancy Rate (%):	60
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	173
Percent of Physicians Who Are Board Certified Specialists:	57
Interns and Residents:	4
Registered Nurses:	148
Licensed Practical Nurses:	12

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

Tucson General Hospital
Tucson, Arizona

Provider Number: 03-0035

The hospital's comments consisted primarily of annotations to the patient specific information and/or the hospital characteristics generated by the Health Care Financing Administration and provided to the hospital. We did not publish this annotated information.

TUCSON MEDICAL CENTER

5301 EAST GRANT ROAD
TUCSON, AZ 85733

Medicare Hospital Provider Number: 030006

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	4,562	12	10 - 14	4,701	10	10 - 14
Cancer	235	44	33 - 52	223	42	33 - 52
Cerebrovascular Accidents	165	23	18 - 33	176	21	19 - 34
Gastrointestinal Catastrophes	40	42	19 - 53	40	27	18 - 51
Infectious Disease	44	36	22 - 54	43	26	19 - 49
Metabolic/Electrolyte Disorders	50	34	14 - 45	41	10	10 - 36
Pulmonary Disease	192	27	17 - 33	163	25	20 - 37
Renal Failure	22	32	19 - 72	14	43	11 - 70
Severe Acute Heart Disease	194	38	30 - 47	219	30	30 - 45
Severe Chronic Heart Disease	155	26	16 - 32	178	24	17 - 31
Severe Trauma	19	37	11 - 57	8	50	4 - 70
Gastrointestinal Disease	320	2	2 - 6	353	3	2 - 6
Gynecologic Disease	78	0	0 -100	62	0	0 - 93
Low-Risk Heart Disease	494	3	2 - 6	493	4	2 - 6
Musculoskeletal/Skin Conditions	512	2	1 - 5	570	1	1 - 4
Neuropsychiatric/Sensory Disease	97	6	0 - 16	93	4	0 - 18
Urologic Disease	284	1	0 - 5	270	1	0 - 6

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	557
Occupancy Rate (%):	63
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	619
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	0
Registered Nurses:	346
Licensed Practical Nurses:	76

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

Medicare Provider #03006

October 6, 1988

Office of the President

Mrs. Sandra Kappert
Health Standards and Quality Bureau
Health Care Financing Administration
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland

Dear Mrs. Kappert:

Tucson Medical Center has received your mailing of September 15, 1988, which included data on the experience of Medicare beneficiaries at this institution. We appreciate the opportunity to comment upon these data.

Our analysis of the data validates that these are indeed patients treated at this institution. As indicated on the attachment, we did find two instances where the medical record number, surname and HIC number did not correspond, corrections are noted.

There are also errors in the hospital characteristics section of your information. In our 1986 AHA survey we reported 562 beds in operation, your report lists 284. Our occupancy rate is correctly reported at 64% for that year. Ownership and control is correct as listed, as is the number of physicians, however the percentage of physicians who are board-certified is incorrectly indicated as 74%. We reported that 520 of the 612 physicians were certified, a percentage of 84.9%. Registered nurses per bed appears high: we reported 363 registered nurses which should yield a RN:Bed ratio of 0.65. Licensed practical nurses per bed also appears incorrect: we reported 68 LPNs, which should yield a 0.12 ratio. We are listed as providing an organ transplant service: we do not have such a service and did not indicate one in our AHA report.

We continue to have concerns regarding the HCFA methodology for calculating "predicted" mortality. We believe the weights afforded to the various patient characteristics (such as age, previous admissions, and sex) and to the comorbid conditions ought to be open to public and professional scrutiny. It is difficult to have confidence in such figures when the derivation of the values is not made available.

In your letter you state you do not recommend that this data be used to make judgements about the quality of care in individual hospitals or to compare hospitals. We agree and suggest your message to the public state exactly what the value and intended use of this information is to be. Tucson Medical Center continues to believe that issues of quality and appropriateness of care are correctly discussed between the patient and the physician.

Cordially,

Richard Polheber
Senior Vice President and
Chief Operating Officer

RP/mg/mlm

Attachment

UNIVERSITY MEDICAL CENTER CORP

1501 N CAMPBELL AVE
TUCSON, AZ 85724

Medicare Hospital Provider Number: 030064

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,795	11	9 - 14	1,669	10	9 - 14
Cancer	91	32	29 - 52	75	32	29 - 54
Cerebrovascular Accidents	40	22	16 - 43	33	21	16 - 45
Gastrointestinal Catastrophes	26	38	20 - 59	16	25	13 - 58
Infectious Disease	11	27	22 - 73	14	57	15 - 65
Metabolic/Electrolyte Disorders	15	33	13 - 61	15	33	7 - 56
Pulmonary Disease	54	28	17 - 42	61	26	15 - 39
Renal Failure	12	50	9 - 71	8	50	10 - 78
Severe Acute Heart Disease	55	42	27 - 54	66	32	27 - 51
Severe Chronic Heart Disease	63	27	13 - 36	69	20	14 - 35
Severe Trauma	7	43	4 - 72	17	41	8 - 58
Gastrointestinal Disease	82	7	1 - 18	69	3	1 - 13
Gynecologic Disease	21	0	0 -100	4	0	0 -100
Low-Risk Heart Disease	179	2	2 - 7	202	4	2 - 9
Musculoskeletal/Skin Conditions	230	1	1 - 6	203	3	0 - 8
Neuropsychiatric/Sensory Disease	68	4	0 - 23	50	4	0 - 39
Urologic Disease	118	1	0 - 12	112	0	0 - 7

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	249
Occupancy Rate (%):	74
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	261
Percent of Physicians Who Are Board Certified Specialists:	95
Interns and Residents:	0
Registered Nurses:	524
Licensed Practical Nurses:	39

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	Yes
Hospice Care:	No

VA HOSP

3601 S 6TH AVE
TUCSON, AZ 85713

Medicare Hospital Provider Number: 03013F

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	7	0	0 - 94	6	0	0 - 93
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	0	-	-	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	0	-	-	0	-	-
Renal Failure	7	0	0 - 94	6	0	0 - 93
Severe Acute Heart Disease	0	-	-	0	-	-
Severe Chronic Heart Disease	0	-	-	0	-	-
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	0	-	-	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	0	-	-	0	-	-
Musculoskeletal/Skin Conditions	0	-	-	0	-	-
Neuropsychiatric/Sensory Disease	0	-	-	0	-	-
Urologic Disease	0	-	-	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA (not available)

Total Beds (#): 381
Ownership/Control: Federal Government

STAFFING

Interns and Residents: 0
Registered Nurses: 0
Licensed Practical Nurses: 0

SPECIALTY SERVICES

Shock/Trauma Unit: No
Burn Unit: No
Medical/Surgical Intensive Care: (not available)
Cardiac Intensive Care: No
Organ Transplant Service: No
Hospice Care: No

VALLEY LUTHERAN HOSP

6644 BAYWOOD AVE
MESA, AZ 85206

Medicare Hospital Provider Number: 030088

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,404	12	9 - 14	2,659	12	9 - 13
Cancer	58	48	27 - 56	61	52	30 - 58
Cerebrovascular Accidents	92	24	16 - 35	83	29	15 - 36
Gastrointestinal Catastrophes	30	23	16 - 51	26	23	14 - 51
Infectious Disease	32	25	18 - 51	41	29	17 - 49
Metabolic/Electrolyte Disorders	22	27	8 - 49	34	26	12 - 46
Pulmonary Disease	172	26	17 - 33	203	21	14 - 30
Renal Failure	12	25	8 - 67	10	10	10 - 67
Severe Acute Heart Disease	141	38	26 - 45	140	44	28 - 46
Severe Chronic Heart Disease	97	24	15 - 33	139	22	16 - 32
Severe Trauma	2	0	1 - 91	1	100	1 - 97
Gastrointestinal Disease	240	3	1 - 7	292	2	1 - 6
Gynecologic Disease	39	0	0 -100	35	0	0 - 95
Low-Risk Heart Disease	268	5	1 - 8	304	2	1 - 6
Musculoskeletal/Skin Conditions	256	3	0 - 7	258	2	1 - 5
Neuropsychiatric/Sensory Disease	39	5	0 - 40	30	0	1 - 17
Urologic Disease	131	0	0 - 7	139	1	0 - 12

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1985

Total Beds (#):	120
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	89
Licensed Practical Nurses:	23

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

Valley Lutheran Hospital

6644 Baywood Avenue
Mesa, AZ 85206
602-981-2000

Medicare Provider
030088

To: Health Standards and Quality Bureau, HCFA
Attention: Mrs.Sandra Kappert
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland 21207

From: Charles Brackney, Administrator
Valley Lutheran Hospital

Claytona Stockdale, Director, Utilization Management
Lutheran Healthcare Network

Re: Valley Lutheran Hospital
HCFA Mortality Data

This memo is in response to the release of mortality data relevant to Valley Lutheran Hospital. After receiving the data which includes all Medicare patients discharged in 1987, we researched and arrived at the following conclusions.

DATA VERIFICATION

The data submitted by HCFA indicates a total of 2,404 Medicare patients were discharged from our hospital. Due to the cost to research and validate each of these patients, 4 diagnostic categories were selected: cancer, pulmonary disease, severe acute heart disease and severe chronic heart disease. From each of these categories 100% of the records of the patients who died within 30 days of their admission date were scrutinized. There were 7 items validated: medical record number, patient name, sex, date of admission, date of discharge, date of death, age, and principal diagnosis.

The total patient population for the 4 categories was 467. This figure differs from HCFA's patient population (468) by one. There was one patient who was transferred to another acute hospital for continued care. Thus this patients should not have been included in Valley Lutheran Hospital data. Six age errors were also noted.

Of the 467 patients, 125 patients expired during their hospital stay. Of these 125 patients, 84 were designated as "NO CODE". Twenty-four patients expired within 30 days after discharge. Nine of those were designated as "NO CODE" while in our facility.

Since our hospital endorses the MEDISGRPS Severity of Illness Index, the 149 cases were correlated with this index. MEDISGRPS is based on "key clinical findings" which places a patient's disease process into a severity of illness range between 0-4. " Zero" severity means the patient is admitted for symptoms with no objective findings or elective procedures. A "one" severity means the patient has few abnormal findings and the likelihood of going into organ failure is remote. A "two" severity means the patient has significant findings and may go into organ failure without treatment. A "three" severity means the patient has severe findings and is very likely to go into organ failure without treatment. A "four" severity means the patient has critical findings indicating that organ failure is present and the patient is very likely to die without treatment.

The severity of illness verified that the patients fell into a range between 0 and 4 with the average being 2.42. Thus these patients had documented clinical findings which could have resulted in death.

INTERPRETIVE REMARKS

Valley Lutheran Hospital does not fall outside the predicted mortality rate in any of the diagnostic catagories listed by HCFA. In addition, our mortality rate for all causes was only 12%.

Our hospital's severity of illness index validated that the patients who did expire had clinical findings that could have resulted in death.

Our investigation discovered errors that could affect the overall picture for our hospital's mortality rate. These include errors in age, and incorrect patient identification.

In closing, please note that Valley Lutheran Hospital has a Quality Assurance program that is systematic, planned and ongoing which reviews each hospital death. The program reviews numerous other key factors to protect our patients from a negative outcome. This program also provides a mechanism to improve the quality of care rendered.

Thank you for the chance to address this issue.

Sincerely,

Charles Brackney
Administrator

BS/tb

VALLEY VIEW COMMUNITY HOSPITAL

12207 113TH AVENUE
YOUNGTOWN, AZ 85363

Medicare Hospital Provider Number: 030057

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	969	13	8 - 13	1,062	11	8 - 13
Cancer	32	59	27 - 62	34	50	23 - 58
Cerebrovascular Accidents	21	24	12 - 49	31	23	16 - 46
Gastrointestinal Catastrophes	3	0	8 - 81	4	25	2 - 81
Infectious Disease	8	38	12 - 72	9	56	12 - 71
Metabolic/Electrolyte Disorders	9	22	6 - 63	12	25	8 - 59
Pulmonary Disease	63	32	12 - 38	57	40	13 - 40
Renal Failure	3	33	7 - 90	4	25	4 - 83
Severe Acute Heart Disease	35	60	24 - 57	36	36	22 - 54
Severe Chronic Heart Disease	40	30	13 - 42	49	22	14 - 38
Severe Trauma	0	-	-	1	0	0 - 99
Gastrointestinal Disease	67	6	0 - 21	96	2	1 - 10
Gynecologic Disease	1	0	0 -100	5	0	0 -100
Low-Risk Heart Disease	76	4	1 - 14	80	1	1 - 9
Musculoskeletal/Skin Conditions	161	2	0 - 8	184	2	1 - 6
Neuropsychiatric/Sensory Disease	18	0	0 - 92	19	0	0 - 93
Urologic Disease	46	0	0 - 33	48	2	0 - 70

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	104
Occupancy Rate (%):	48
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	86
Percent of Physicians Who Are Board Certified Specialists:	63
Interns and Residents:	0
Registered Nurses:	82
Licensed Practical Nurses:	7

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

VALLEY VIEW COMMUNITY HOSPITAL

12207 North 113th Avenue / Youngtown, Arizona 85363 / (602) 933-0155

October 19, 1988

Mrs. Sandra Kappert
Health Care Financing Administration
Health Standards and Quality Bureau
Meadows East Bldg. 2 - D-2
6325 Security Blvd.
Baltimore, Maryland 21207

Medicare Provider #03-0057

Dear Mrs. Kappert:

Thank you for this opportunity to respond to the HCFA Mortality Data.

The one diagnostic category with an actual mortality rate higher than the range for predicted mortality is severe acute heart disease. The actual rate was 60 and the range for predicted mortality is 24-57.

Of the 35 cases, 21 died while they were hospitalized. The ages of the 21 ranged from 61-94. There were two in the 60's, eight in the 70's, eight in the 80's and three in the 90's. Five of the 21 deaths were on a no-code status.

Over 80% of the discharged patients are Medicare and this is one of the highest Medicare populations in the nation. The age of our Medicare patients has a direct impact on the mortality rates with the diagnosis in the upper quartile.

Valley View Community Hospital is a 104 general acute care facility. Because of our location, the present focus is on geriatrics. Besides the medical and surgical areas, we offer an in depth geriatric human development program for severe depression, plus an extensive health education program for the communities we serve.

Sincerely,

Duane R. Vorseth
Vice President
and Administrator

DRV/js

WALTER O BOSWELL MEM HOSP

10401 THUNDERBIRD BLVD
SUN CITY, AZ 85351

Medicare Hospital Provider Number: 030061

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	7,286	12	10 - 13	6,980	12	10 - 14
Cancer	319	35	31 - 48	332	44	34 - 52
Cerebrovascular Accidents	309	27	20 - 32	290	19	21 - 33
Gastrointestinal Catastrophes	47	28	19 - 50	53	36	22 - 53
Infectious Disease	68	37	22 - 49	66	23	23 - 49
Metabolic/Electrolyte Disorders	121	22	16 - 39	78	28	12 - 38
Pulmonary Disease	330	32	19 - 33	236	22	19 - 34
Renal Failure	21	38	18 - 72	22	50	18 - 73
Severe Acute Heart Disease	293	43	32 - 47	318	44	32 - 46
Severe Chronic Heart Disease	307	23	18 - 29	231	25	17 - 31
Severe Trauma	18	17	14 - 55	17	24	10 - 56
Gastrointestinal Disease	556	3	1 - 6	573	2	1 - 5
Gynecologic Disease	47	0	0 -100	32	0	0 -100
Low-Risk Heart Disease	875	2	2 - 5	873	3	2 - 5
Musculoskeletal/Skin Conditions	722	3	1 - 5	730	2	1 - 4
Neuropsychiatric/Sensory Disease	137	4	0 - 11	147	0	1 - 5
Urologic Disease	424	1	0 - 5	414	1	0 - 5

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	355
Occupancy Rate (%):	76
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	172
Percent of Physicians Who Are Board Certified Specialists:	83
Interns and Residents:	0
Registered Nurses:	196
Licensed Practical Nurses:	64

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

Walter O. Boswell Memorial Hospital, Inc.
Post Office Box 1690
10401 Thunderbird Boulevard.
Sun City, Arizona 85372
Telephone (602) 977-7211

October 21, 1988

Mrs. Sandra Kappert
Health Standards and Quality Bureau, HCFA
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland 21207

Re: Medicare Hospital Mortality Information - 1987

Dear Mrs. Kappert:

We have identified several portions under the hospital characteristics section that are incorrect. In 1986, the number of beds the hospital had licensed was 355. The current report shows only 255. With regard to the total number of physicians on staff, we currently have 456, not the 164 indicated on your report. Regarding specialty of services, the hospital does not have an organ transplant service.

Thank you for the opportunity to make these corrections.

Sincerely,

George Perez
Executive Vice President

GP:mj

enc.

cc: W. A. Turner
Leland W. Peterson
John R. Rivers, ArHA
W. A. Turner

A non-profit community hospital
An affiliate of the Sun Health Corporation

WHITE MOUNTAIN COMMUNITIES HOSP

P O BOX 471
SPRINGERVILLE, AZ 85938

Medicare Hospital Provider Number: 030046

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	104	12	8 - 22	126	6	8 - 18
Cancer	1	100	2 -100	2	0	4 - 88
Cerebrovascular Accidents	6	17	5 - 68	7	57	6 - 71
Gastrointestinal Catastrophes	0	-	-	1	0	2 - 97
Infectious Disease	0	-	-	3	33	3 - 86
Metabolic/Electrolyte Disorders	2	0	0 - 99	1	0	0 - 98
Pulmonary Disease	7	14	9 - 66	9	0	5 - 45
Renal Failure	1	0	0 - 98	0	-	-
Severe Acute Heart Disease	9	56	11 - 69	4	25	9 - 82
Severe Chronic Heart Disease	8	25	6 - 65	6	0	3 - 57
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	4	0	0 - 99	10	0	0 -100
Gynecologic Disease	1	0	0 -100	1	0	0 -100
Low-Risk Heart Disease	12	0	0 - 93	10	0	0 - 98
Musculoskeletal/Skin Conditions	6	0	0 -100	11	9	0 - 97
Neuropsychiatric/Sensory Disease	2	0	0 -100	4	0	0 -100
Urologic Disease	3	0	0 -100	2	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	25
Occupancy Rate (%):	40
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	22
Percent of Physicians Who Are Board Certified Specialists:	82
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

WICKENBURG COMMUNITY HOSPITAL

ROSE LANE PO BOX 1388
WICKENBURG, AZ 85358

Medicare Hospital Provider Number: 030025

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	227	20	11 - 22	246	14	9 - 18
Cancer	8	63	14 - 74	8	88	18 - 70
Cerebrovascular Accidents	9	44	7 - 66	6	33	4 - 73
Gastrointestinal Catastrophes	1	0	1 - 97	3	0	3 - 79
Infectious Disease	0	-	-	5	80	15 - 81
Metabolic/Electrolyte Disorders	3	0	2 - 81	5	40	1 - 82
Pulmonary Disease	39	26	12 - 41	23	13	5 - 38
Renal Failure	4	100	13 - 80	2	0	5 - 90
Severe Acute Heart Disease	26	50	23 - 61	24	29	20 - 57
Severe Chronic Heart Disease	7	0	8 - 53	6	0	5 - 57
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	22	0	0 - 43	32	3	0 - 41
Gynecologic Disease	0	-	-	1	0	0 -100
Low-Risk Heart Disease	25	4	0 - 40	33	0	0 - 21
Musculoskeletal/Skin Conditions	12	0	0 - 74	14	7	0 - 99
Neuropsychiatric/Sensory Disease	5	0	0 - 82	2	0	0 -100
Urologic Disease	5	0	0 -100	3	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1988

Total Beds (#):	34
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	10
Licensed Practical Nurses:	1

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

WINSLOW MEM HOSP

1501 WILLIAMSON AVE
WINSLOW, AZ 86047

Medicare Hospital Provider Number: 030044

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	95	24	9 - 27	155	19	9 - 22
Cancer	1	100	2 - 97	4	75	7 - 81
Cerebrovascular Accidents	4	50	4 - 82	3	33	3 - 86
Gastrointestinal Catastrophes	1	0	0 - 98	0	-	-
Infectious Disease	2	0	2 - 88	4	75	8 - 82
Metabolic/Electrolyte Disorders	5	60	6 - 78	3	0	1 - 83
Pulmonary Disease	21	19	9 - 45	34	24	10 - 41
Renal Failure	1	100	3 - 99	0	-	-
Severe Acute Heart Disease	5	40	11 - 82	11	45	15 - 69
Severe Chronic Heart Disease	8	38	3 - 68	3	33	0 - 92
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	9	0	0 - 99	12	0	0 - 71
Gynecologic Disease	0	-	-	1	0	0 -100
Low-Risk Heart Disease	11	27	0 -100	23	9	0 - 51
Musculoskeletal/Skin Conditions	2	0	0 -100	4	0	0 -100
Neuropsychiatric/Sensory Disease	3	0	0 -100	3	33	0 -100
Urologic Disease	2	0	0 -100	1	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	42
Occupancy Rate (%):	21
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	13
Percent of Physicians Who Are Board Certified Specialists:	15
Interns and Residents:	0
Registered Nurses:	11
Licensed Practical Nurses:	3

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

Winslow Memorial Hospital

INCORPORATED

1501 WILLIAMSON
WINSLOW, ARIZONA 86047

Telephone (602) 289-4691

October 19, 1988

William L. Roper, M.D.
6325 Security Boulevard
Baltimoe, Maryland 21207

Dear Dr. Roper,

Winslow Memorial Hospital is a 42 bed non-profit acute care hospital serving Winslow and surrounding rural communities in north-eastern Arizona. We have carefully reviewed the mortality data provided by HCFA and wish to make the following comments:

Mortality statistics for Winslow Memorial Hospital Medicare patients fell within the range for predicted mortality in all diagnostic categories except that for cancer and renal failure. In both instances, there was but one patient in this diagnostic category.

In a small community hosptal, the mortality rates can be misrepresented by the low number of Medicare admissions within a diagnostic category which results in an inaccurate picture of the quality of care in that institution.

Winslow Memorial Hospital has an active ongoing hospital-wide Quality Assurance program which includes indepth review of all deaths and close scrutiny of the quality of care provided to all our patients. Quality judgments can be made only on the basis of case-by-case review of each patient's care.

We do not disagree with the concept that HCFA mortality data can be helpful to the hospital and consumers but we do, however, believe this information should not be used as an absolute measure of quality of care. Severity of illness, the presence of multiple underlying co-morbidities and the role of the individual hospital should also be addressed.

Sincerely,

M. Ronald King

Michael J. King
Acting Administrator

YAVAPAI COMMUNITY HOSPITAL

1003 WILLOW CREEK ROAD
PRESCOTT, AZ 86301

Medicare Hospital Provider Number: 030012

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,488	13	9 - 14	1,511	11	9 - 14
Cancer	51	59	32 - 62	56	50	29 - 58
Cerebrovascular Accidents	60	28	16 - 40	45	20	16 - 41
Gastrointestinal Catastrophes	16	13	14 - 53	14	36	14 - 64
Infectious Disease	8	13	15 - 67	8	25	11 - 69
Metabolic/Electrolyte Disorders	11	18	5 - 57	6	33	2 - 74
Pulmonary Disease	82	24	13 - 35	96	20	16 - 36
Renal Failure	8	75	23 - 87	0	-	-
Severe Acute Heart Disease	67	31	26 - 50	66	48	27 - 52
Severe Chronic Heart Disease	81	20	12 - 31	74	18	13 - 32
Severe Trauma	3	33	3 - 86	2	50	2 - 92
Gastrointestinal Disease	165	2	1 - 8	170	1	1 - 6
Gynecologic Disease	30	0	0 -100	24	0	0 -100
Low-Risk Heart Disease	166	4	1 - 9	166	2	2 - 8
Musculoskeletal/Skin Conditions	124	3	1 - 10	129	3	0 - 10
Neuropsychiatric/Sensory Disease	42	2	0 - 51	42	2	0 - 28
Urologic Disease	58	0	0 - 42	51	2	0 - 26

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	113
Occupancy Rate (%):	62
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	67
Percent of Physicians Who Are Board Certified Specialists:	66
Interns and Residents:	0
Registered Nurses:	127
Licensed Practical Nurses:	10

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

YUMA REGIONAL MEDICAL CENTER

2400 AVENUE 'A'
YUMA, AZ 85364

Medicare Hospital Provider Number: 030013

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,636	12	9 - 13	2,449	12	9 - 13
Cancer	63	38	27 - 54	81	37	30 - 55
Cerebrovascular Accidents	89	24	16 - 35	100	32	16 - 36
Gastrointestinal Catastrophes	24	33	13 - 54	24	29	18 - 57
Infectious Disease	24	38	14 - 54	18	11	17 - 53
Metabolic/Electrolyte Disorders	36	22	11 - 44	36	33	11 - 46
Pulmonary Disease	154	24	14 - 32	122	23	15 - 34
Renal Failure	5	0	11 - 74	6	33	11 - 82
Severe Acute Heart Disease	122	36	26 - 46	107	42	26 - 47
Severe Chronic Heart Disease	112	27	13 - 31	82	32	14 - 35
Severe Trauma	3	0	6 - 80	3	0	2 - 81
Gastrointestinal Disease	197	3	1 - 8	172	3	1 - 9
Gynecologic Disease	16	0	0 -100	15	0	0 -100
Low-Risk Heart Disease	354	3	1 - 6	322	3	1 - 6
Musculoskeletal/Skin Conditions	198	4	1 - 9	216	0	1 - 5
Neuropsychiatric/Sensory Disease	108	3	0 - 12	89	4	0 - 15
Urologic Disease	154	1	0 - 9	129	0	0 - 7

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	259
Occupancy Rate (%):	69
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	87
Percent of Physicians Who Are Board Certified Specialists:	76
Interns and Residents:	0
Registered Nurses:	208
Licensed Practical Nurses:	88

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

GUAM MEM HOSP

P O BOX AX
AGANA, GU 96910

Medicare Hospital Provider Number: 650001

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	315	14	8 - 17	297	20	9 - 19
Cancer	1	0	1 - 97	7	57	21 - 85
Cerebrovascular Accidents	9	56	3 - 66	28	29	12 - 46
Gastrointestinal Catastrophes	1	100	3 - 98	2	100	6 - 90
Infectious Disease	5	40	4 - 78	2	0	5 - 89
Metabolic/Electrolyte Disorders	6	0	11 - 63	6	17	4 - 69
Pulmonary Disease	26	19	13 - 45	18	56	6 - 53
Renal Failure	0	-	-	2	0	6 - 91
Severe Acute Heart Disease	11	45	17 - 71	9	67	17 - 73
Severe Chronic Heart Disease	23	22	9 - 44	27	22	9 - 42
Severe Trauma	2	0	1 - 89	1	0	0 - 98
Gastrointestinal Disease	19	5	0 - 93	13	8	0 - 93
Gynecologic Disease	3	0	0 -100	2	0	0 -100
Low-Risk Heart Disease	33	6	0 - 39	31	10	0 - 61
Musculoskeletal/Skin Conditions	36	6	0 - 48	30	3	0 - 60
Neuropsychiatric/Sensory Disease	7	0	0 -100	6	0	0 - 99
Urologic Disease	8	0	0 -100	9	11	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1987

Total Beds (#):	145
Ownership/Control:	State Government

STAFFING

Interns and Residents:	0
Registered Nurses:	101
Licensed Practical Nurses:	46

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

CASTLE MEMORIAL HOSPITAL

640 ULUKAHIKI ST
KAILUA, HI 96734

Medicare Hospital Provider Number: 120006

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	981	13	9 - 15	879	11	8 - 14
Cancer	36	44	28 - 62	30	43	25 - 61
Cerebrovascular Accidents	51	35	13 - 40	50	14	15 - 37
Gastrointestinal Catastrophes	6	67	19 - 86	5	40	4 - 78
Infectious Disease	13	15	16 - 60	9	44	9 - 69
Metabolic/Electrolyte Disorders	12	17	6 - 54	9	44	9 - 69
Pulmonary Disease	45	16	14 - 38	42	26	11 - 40
Renal Failure	2	0	0 - 95	0	-	-
Severe Acute Heart Disease	38	45	24 - 56	29	38	22 - 58
Severe Chronic Heart Disease	57	14	13 - 32	53	19	11 - 34
Severe Trauma	4	0	5 - 71	2	50	0 - 95
Gastrointestinal Disease	63	2	0 - 14	64	6	0 - 23
Gynecologic Disease	9	0	0 -100	5	0	0 -100
Low-Risk Heart Disease	90	2	1 - 10	91	3	1 - 12
Musculoskeletal/Skin Conditions	91	5	1 - 15	75	3	0 - 18
Neuropsychiatric/Sensory Disease	95	0	0 - 10	101	1	0 - 12
Urologic Disease	28	4	0 - 48	26	0	1 - 21

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	156
Occupancy Rate (%):	(not available)
Ownership/Control:	Church

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	(not available)
Burn Unit:	(not available)
Medical/Surgical Intensive Care:	(not available)
Cardiac Intensive Care:	(not available)
Organ Transplant Service:	(not available)
Hospice Care:	(not available)

G N WILCOX MEMORIAL HOSPITAL

3420 KUHIO HIGHWAY
LIHUE, HI 96766

Medicare Hospital Provider Number: 120014

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	617	11	10 - 16	611	11	10 - 16
Cancer	28	54	24 - 62	15	60	18 - 66
Cerebrovascular Accidents	23	26	10 - 47	43	30	13 - 41
Gastrointestinal Catastrophes	6	33	4 - 73	10	10	12 - 58
Infectious Disease	16	6	15 - 49	11	27	10 - 63
Metabolic/Electrolyte Disorders	11	18	5 - 57	23	30	8 - 49
Pulmonary Disease	36	11	13 - 38	42	17	12 - 38
Renal Failure	1	0	3 - 99	2	0	3 - 89
Severe Acute Heart Disease	29	34	24 - 59	25	32	23 - 59
Severe Chronic Heart Disease	33	21	9 - 38	25	12	12 - 41
Severe Trauma	0	-	-	2	0	2 - 89
Gastrointestinal Disease	45	0	1 - 12	46	2	0 - 20
Gynecologic Disease	4	0	0 -100	4	0	0 -100
Low-Risk Heart Disease	55	4	0 - 23	42	5	0 - 38
Musculoskeletal/Skin Conditions	45	0	1 - 12	64	2	0 - 24
Neuropsychiatric/Sensory Disease	16	0	0 - 87	11	0	0 - 99
Urologic Disease	27	0	0 - 76	25	0	0 - 72

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	155
Occupancy Rate (%):	78
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	51
Percent of Physicians Who Are Board Certified Specialists:	73
Interns and Residents:	0
Registered Nurses:	69
Licensed Practical Nurses:	42

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

HILO HOSPITAL

1190 WAIANUENUE AVENUE
HILO, HI 96720

Medicare Hospital Provider Number: 120005

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,334	11	9 - 14	1,277	12	8 - 13
Cancer	45	44	28 - 59	34	44	25 - 60
Cerebrovascular Accidents	95	22	16 - 34	83	25	17 - 37
Gastrointestinal Catastrophes	9	33	12 - 70	12	42	9 - 63
Infectious Disease	12	33	7 - 60	17	41	11 - 58
Metabolic/Electrolyte Disorders	24	29	9 - 49	20	15	4 - 44
Pulmonary Disease	64	31	14 - 39	51	24	13 - 38
Renal Failure	3	33	3 - 87	5	40	8 - 83
Severe Acute Heart Disease	55	33	22 - 49	42	31	22 - 51
Severe Chronic Heart Disease	63	17	10 - 31	55	29	11 - 37
Severe Trauma	5	40	4 - 78	3	33	5 - 87
Gastrointestinal Disease	93	2	0 - 11	86	5	0 - 18
Gynecologic Disease	6	0	0 -100	7	0	0 -100
Low-Risk Heart Disease	128	1	2 - 7	115	3	1 - 9
Musculoskeletal/Skin Conditions	115	3	0 - 12	90	2	1 - 10
Neuropsychiatric/Sensory Disease	72	3	0 - 31	66	3	0 - 37
Urologic Disease	64	2	0 - 35	89	0	0 - 9

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	274
Occupancy Rate (%):	74
Ownership/Control:	State Government

STAFFING

Total Number of Physicians:	89
Percent of Physicians Who Are Board Certified Specialists:	67
Interns and Residents:	0
Registered Nurses:	104
Licensed Practical Nurses:	69

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

HONOKAA HOSPITAL

P O BOX 237
HONOKAA, HI 96727

Medicare Hospital Provider Number: 120016

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	107	13	8 - 22	106	8	7 - 18
Cancer	6	50	14 - 81	3	67	9 - 90
Cerebrovascular Accidents	6	0	7 - 58	5	20	4 - 74
Gastrointestinal Catastrophes	0	-	-	1	0	1 - 97
Infectious Disease	1	100	3 - 98	0	-	-
Metabolic/Electrolyte Disorders	3	33	7 - 88	3	0	1 - 85
Pulmonary Disease	7	14	7 - 64	1	0	0 - 99
Renal Failure	0	-	-	1	100	1 - 97
Severe Acute Heart Disease	0	-	-	4	0	9 - 72
Severe Chronic Heart Disease	7	14	4 - 63	9	22	4 - 61
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	7	0	0 - 97	5	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	16	6	0 - 97	20	5	0 - 62
Musculoskeletal/Skin Conditions	7	0	0 -100	8	0	0 - 99
Neuropsychiatric/Sensory Disease	2	0	0 -100	1	0	0 -100
Urologic Disease	1	0	0 -100	2	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	30
Occupancy Rate (%):	50
Ownership/Control:	State Government

STAFFING

Total Number of Physicians:	13
Percent of Physicians Who Are Board Certified Specialists:	38
Interns and Residents:	0
Registered Nurses:	10
Licensed Practical Nurses:	9

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

KAHUKU HOSP

P O BOX 218
KAHUKU, HI 96731

Medicare Hospital Provider Number: 120012

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	60	10	9 - 25	67	9	6 - 21
Cancer	0	-	-	1	100	3 - 99
Cerebrovascular Accidents	1	0	0 - 98	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	3	0	1 - 82	1	100	3 - 99
Metabolic/Electrolyte Disorders	2	100	3 - 88	2	0	1 - 90
Pulmonary Disease	12	8	7 - 48	8	25	10 - 68
Renal Failure	2	50	7 - 96	0	-	-
Severe Acute Heart Disease	2	50	5 - 93	1	0	1 - 97
Severe Chronic Heart Disease	3	0	4 - 79	4	0	2 - 71
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	6	17	0 -100	6	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	2	0	0 -100	5	20	0 -100
Musculoskeletal/Skin Conditions	3	0	0 -100	14	0	0 - 98
Neuropsychiatric/Sensory Disease	1	0	0 -100	2	0	0 -100
Urologic Disease	0	-	-	2	50	0 - 99

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	26
Occupancy Rate (%):	(not available)
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	(not available)
Burn Unit:	(not available)
Medical/Surgical Intensive Care:	(not available)
Cardiac Intensive Care:	(not available)
Organ Transplant Service:	(not available)
Hospice Care:	(not available)

KAISER FOUNDATION HOSP

3288 MOANALUA RD
HONOLULU, HI 96818

Medicare Hospital Provider Number: 120011

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,394	10	9 - 14	1,354	11	9 - 14
Cancer	67	25	23 - 48	76	26	24 - 48
Cerebrovascular Accidents	75	13	14 - 32	74	15	15 - 34
Gastrointestinal Catastrophes	8	75	11 - 69	10	50	14 - 71
Infectious Disease	24	42	15 - 56	20	30	15 - 57
Metabolic/Electrolyte Disorders	16	0	10 - 39	16	19	7 - 51
Pulmonary Disease	72	22	16 - 38	72	22	11 - 33
Renal Failure	5	60	5 - 81	6	17	14 - 81
Severe Acute Heart Disease	62	24	25 - 49	61	38	25 - 51
Severe Chronic Heart Disease	72	13	14 - 31	55	16	12 - 33
Severe Trauma	6	17	6 - 70	5	20	3 - 75
Gastrointestinal Disease	68	1	1 - 11	66	0	0 - 10
Gynecologic Disease	11	0	0 -100	10	0	0 -100
Low-Risk Heart Disease	129	1	1 - 6	139	9	0 - 15
Musculoskeletal/Skin Conditions	123	2	0 - 11	119	3	0 - 12
Neuropsychiatric/Sensory Disease	32	6	0 - 47	31	6	0 - 70
Urologic Disease	104	1	0 - 13	95	0	0 - 13

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	168
Occupancy Rate (%):	88
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	0
Registered Nurses:	30
Licensed Practical Nurses:	11

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

KAISER PERMANENTE
Medical Care Program

October 21, 1988

Medicare Provider No. 120011

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Hubert H. Humphrey Building
200 Independence Avenue S.W.
Washington, DC 20201

Dear Dr. Roper:

The Kaiser Permanente Medical Care Program has a substantial and continuing involvement in the development and use of methods to adequately risk adjust outcomes of hospital care. Although we support the concept of providing consumers with information on this subject, the 1987 Medicare hospital mortality statistics are of limited value for this purpose. Despite some further improvements in the methods used to prepare these statistics, many problems remain.

One serious error in the HCFA mortality models is the failure to adjust for the diverse mortality rates of the principal diagnoses within a given diagnostic category. For example, "Severe Acute Heart Disease" includes both subendocardial infarcts and ruptured aortic aneurysms. The death rates for the latter typically average five times those for the former; nothing in the model adjusts for the mix of these cases by hospital.

The "Severe Trauma" category includes injuries which vary considerably in their death rates. Using chronic disease comorbidities is of little value. It would have been far more appropriate to use various trauma-related diagnoses as risk predictors.

The "Cancer" diagnostic category is one of the most problematic. The stage of malignancy is a key prognostic risk factor, but HCFA uses none of the codes in its model which would help to distinguish stage. The risk model should favor cancer cases having scheduled surgery. HCFA has failed once again to omit cancer cases hospitalized in hospice services which have not sought Medicare approval. (Regulations require that a hospital bill be submitted for such cases even though no charges are made to Medicare.) Several Kaiser Foundation Hospitals with such hospice services had substantial numbers of these hospice cases included, with predictably high death rates.

Medicare Provider No. 120011

Based on the binomial distribution, a 100% mortality rate can occur by chance over 2.5% of the time when a hospital has 1 or 2 cases in a diagnostic category with an expected probability of death of 20% (e.g., Severe Trauma) or has 1, 2, 3 or 4 cases in a category with an expected death rate of 40% (e.g., Renal Failure). Hospital deaths in these categories which exceed their predicted mortality range raise questions about HCFA's statistical tests.

We were unable to confirm many of the "Hospital Characteristics" reported for Kaiser Foundation Hospitals. Discussions with staff of the American Hospital Association have revealed that HCFA made numerous errors when cross-tabulating the Association's survey data (e.g., using imputed instead of reported values for the "percent of physicians who are Board Certified specialists"). For this reason there is little sense in preparing detailed revisions of these faulty data, which we assume will be corrected by HCFA at some future time.

Sincerely yours,

Mark S. Blumberg

Mark S. Blumberg, M.D.
for Ronald J. Mikolajczyk
Regional Hospital Administrator

MSB:VTS

KAPIOLANI MEDICAL CENTER

1319 PUNAHOU ST
HONOLULU, HI 96826

Medicare Hospital Provider Number: 120008

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	57	0	2 - 10	49	0	1 - 11
Cancer	3	0	4 - 79	4	0	4 - 71
Cerebrovascular Accidents	0	-	-	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	1	0	0 -100	0	-	-
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	0	-	-	0	-	-
Severe Chronic Heart Disease	0	-	-	0	-	-
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	0	-	-	0	-	-
Gynecologic Disease	25	0	0 -100	20	0	0 -100
Low-Risk Heart Disease	2	0	0 -100	0	-	-
Musculoskeletal/Skin Conditions	2	0	0 -100	2	0	0 -100
Neuropsychiatric/Sensory Disease	0	-	-	0	-	-
Urologic Disease	1	0	0 -100	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	232
Occupancy Rate (%):	85
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	229
Percent of Physicians Who Are Board Certified Specialists:	68
Interns and Residents:	2
Registered Nurses:	351
Licensed Practical Nurses:	74

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

Kapiolani Medical Center for Women and Children

Richard Davi
President and Chief Executive Officer

1319 Punahou St.
Honolulu, Hawaii
96826
(808) 947-8511

September 29, 1988

Sandra Kappert
Health Care Financing Administration
Health Standard and Quality Bureau
Meadows East Building 2-D-2
6325 Security Blvd.
Baltimore, Maryland 21207

Re: Mortality Date Hospital #120008

Dear Ms. Kappert:

Please be informed that our bed number and occupancy rate are incorrect on the recently published data. We have 232 beds plus 90 bassinets and our occupancy rate, 1987, was 76.7%.

Thank you.

Sincerely,

Barbara Quinn
Director, Quality Assurance

BQ:mt

A non profit organization specializing in maternal, gynecological, newborn and pediatric care.

Affiliated with the University of Hawaii at Manoa, John A. Burns School of Medicine, Department of Obstetrics & Gynecology, and Department of Pediatrics.

Accredited by the Joint Commission on Accreditation of Hospitals Council of Medical Education, and American Medical Association.

KAU HOSPITAL

P O BOX 248
PAHALA, HI 96777

Medicare Hospital Provider Number: 120018

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	8	25	1 - 74	23	13	5 - 37
Cancer	1	100	3 - 99	0	-	-
Cerebrovascular Accidents	0	-	-	1	0	1 - 97
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	4	0	4 - 71
Pulmonary Disease	1	0	0 -100	0	-	-
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	0	-	-	0	-	-
Severe Chronic Heart Disease	0	-	-	0	-	-
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	0	-	-	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	1	100	0 -100	3	0	0 -100
Musculoskeletal/Skin Conditions	1	0	0 -100	2	0	0 -100
Neuropsychiatric/Sensory Disease	0	-	-	0	-	-
Urologic Disease	0	-	-	1	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	15
Occupancy Rate (%):	67
Ownership/Control:	State Government

STAFFING

Total Number of Physicians:	2
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	0
Registered Nurses:	8
Licensed Practical Nurses:	4

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

KAUAI VETERANS MEMORIAL HOSPITAL

P O BOX 337
WAIMEA, HI 96796

Medicare Hospital Provider Number: 120003

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	190	9	8 - 17	199	16	9 - 20
Cancer	1	0	0 - 98	3	67	5 - 86
Cerebrovascular Accidents	15	27	10 - 54	10	50	7 - 64
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	4	25	10 - 84	3	33	4 - 86
Metabolic/Electrolyte Disorders	4	0	2 - 72	11	55	7 - 63
Pulmonary Disease	10	20	10 - 61	16	38	12 - 58
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	7	57	8 - 72	9	33	13 - 70
Severe Chronic Heart Disease	15	7	8 - 41	12	0	12 - 42
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	10	0	0 - 99	13	0	0 - 89
Gynecologic Disease	1	0	0 -100	1	0	0 -100
Low-Risk Heart Disease	12	0	0 - 93	20	10	0 - 89
Musculoskeletal/Skin Conditions	14	0	0 - 86	11	18	0 - 73
Neuropsychiatric/Sensory Disease	1	0	0 -100	1	0	0 -100
Urologic Disease	5	0	0 -100	13	0	0 - 96

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	44
Occupancy Rate (%):	36
Ownership/Control:	State Government

STAFFING

Total Number of Physicians:	16
Percent of Physicians Who Are Board Certified Specialists:	69
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

KOHALA HOSPITAL

P O BOX 10
KAPAAU, HI 96755

Medicare Hospital Provider Number: 120021

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	35	17	10 - 37	39	13	8 - 31
Cancer	1	0	2 -100	3	100	15 - 87
Cerebrovascular Accidents	1	0	1 - 97	1	100	0 - 98
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	1	0	1 - 97	1	0	0 - 98
Metabolic/Electrolyte Disorders	1	0	0 - 99	3	0	5 - 79
Pulmonary Disease	8	38	10 - 70	1	0	3 - 99
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	2	0	4 - 89	1	0	1 - 97
Severe Chronic Heart Disease	4	25	5 - 80	4	0	5 - 70
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	1	0	0 -100	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	5	0	0 -100	9	0	0 - 89
Musculoskeletal/Skin Conditions	3	33	0 -100	2	0	0 -100
Neuropsychiatric/Sensory Disease	1	0	0 -100	1	0	0 -100
Urologic Disease	0	-	-	1	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	26
Occupancy Rate (%):	73
Ownership/Control:	State Government

STAFFING

Total Number of Physicians:	4
Percent of Physicians Who Are Board Certified Specialists:	100
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

KONA HOSP

P O BOX 69
KEALAKEKUA, HI 96750

Medicare Hospital Provider Number: 120019

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	498	11	8 - 15	444	10	8 - 15
Cancer	14	64	18 - 67	11	27	20 - 71
Cerebrovascular Accidents	17	29	13 - 55	18	28	14 - 55
Gastrointestinal Catastrophes	7	14	8 - 66	4	25	3 - 80
Infectious Disease	4	0	3 - 72	6	33	11 - 78
Metabolic/Electrolyte Disorders	1	0	0 -100	8	38	5 - 68
Pulmonary Disease	29	28	13 - 47	26	12	9 - 38
Renal Failure	0	-	-	2	50	3 - 93
Severe Acute Heart Disease	20	50	19 - 62	8	38	14 - 74
Severe Chronic Heart Disease	32	6	11 - 32	28	14	10 - 38
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	28	0	1 - 19	24	4	1 - 31
Gynecologic Disease	1	0	0 -100	4	0	0 -100
Low-Risk Heart Disease	42	5	0 - 32	54	2	1 - 14
Musculoskeletal/Skin Conditions	40	10	0 - 89	24	0	0 - 28
Neuropsychiatric/Sensory Disease	9	0	0 - 99	6	0	0 -100
Urologic Disease	59	2	0 - 17	52	4	0 - 60

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	59
Occupancy Rate (%):	73
Ownership/Control:	State Government

STAFFING

Total Number of Physicians:	47
Percent of Physicians Who Are Board Certified Specialists:	68
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

KUAKINI MEDICAL CENTER

347 N KUAKINI STREET
HONOLULU, HI 96817

Medicare Hospital Provider Number: 120007

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,418	11	12 - 16	2,512	14	12 - 17
Cancer	87	23	27 - 49	113	27	31 - 53
Cerebrovascular Accidents	175	28	18 - 34	165	20	19 - 33
Gastrointestinal Catastrophes	26	27	20 - 57	28	25	18 - 54
Infectious Disease	42	29	24 - 55	30	37	20 - 57
Metabolic/Electrolyte Disorders	63	24	19 - 46	66	24	16 - 43
Pulmonary Disease	164	24	21 - 38	183	33	22 - 40
Renal Failure	21	24	11 - 63	29	31	14 - 66
Severe Acute Heart Disease	82	35	29 - 51	86	40	32 - 54
Severe Chronic Heart Disease	102	14	17 - 32	97	34	16 - 37
Severe Trauma	15	13	9 - 51	15	40	10 - 61
Gastrointestinal Disease	129	2	1 - 9	178	2	1 - 7
Gynecologic Disease	6	0	0 -100	6	0	0 -100
Low-Risk Heart Disease	214	4	2 - 8	217	5	1 - 8
Musculoskeletal/Skin Conditions	180	3	1 - 8	203	5	1 - 9
Neuropsychiatric/Sensory Disease	31	0	0 - 20	50	0	0 - 19
Urologic Disease	166	1	0 - 12	124	2	0 - 14

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	250
Occupancy Rate (%):	70
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	168
Percent of Physicians Who Are Board Certified Specialists:	67
Interns and Residents:	0
Registered Nurses:	247
Licensed Practical Nurses:	62

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

Hospital I.D. 120007

KUAKINI MEDICAL CENTER
347 NORTH KUAKINI STREET / HONOLULU, HAWAII 96817
TELEPHONE 536-2236

October 3, 1988

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Mrs. Sandra Kappert
Health Standards Quality
Bureau, HCFA
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, MD 21207

Dear Mrs. Kappert:

Kuakini Medical Center is providing comments to the Medicare Hospital Mortality Information received from Health Care Financing Administration (HCFA). At this time, I would like to bring to your attention discrepancies in the data listed for calendar year 1986 on the summary mortality information sheet. In comparing the information sent to us last year, several categories show a decrease in number of cases listed. The following is a list of the specific diagnostic categories:

Calendar Year 1986

Category	Information Sent in 1987	Information Sent in 1988
Cancer	113	233
Gastrointestinal Catastrophes	28	64
Metabolic/Electrolyte Disturbances	66	86
Pulmonary Disease	183	217
Renal Failure	29	42
Severe Chronic Heart Disease	97	100
Severe Trauma	15	99
Gastrointestinal Disease	178	283
Urologic Disease	124	133

The summary mortality information sheet also contains errors in the hospital characteristics which Kuakini provided to AHA for calendar year 1986. The following is a list of corrections to the hospital characteristics:

Number of beds - 249
Specialty Services - yes
Organ Transplant Services - no

The total number of physicians identified in the AHA survey are only those practitioners who were on the Active and Associate Medical Staff. The hospital has more than 375 other physicians who are in other categories such as Courtesy, Consulting, Teaching, and Provisional.

Thank you for the opportunity to provide these comments prior to HCFA's publication of mortality information.

Sincerely,

Darryl N. Ing
Vice President

DNI:cs

KULA HOSPITAL

204 KULA HIGHWAY
KULA, HI 96790

Medicare Hospital Provider Number: 120024

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	3	0	0 - 97	7	29	2 - 70
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	0	-	-	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	1	0	0 - 99
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	1	0	0 - 99	1	100	2 - 97
Renal Failure	0	-	-	1	100	2 - 97
Severe Acute Heart Disease	0	-	-	0	-	-
Severe Chronic Heart Disease	0	-	-	1	0	0 -100
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	0	-	-	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	0	-	-	1	0	0 -100
Musculoskeletal/Skin Conditions	0	-	-	0	-	-
Neuropsychiatric/Sensory Disease	0	-	-	0	-	-
Urologic Disease	0	-	-	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1988

Total Beds (#):	2
Ownership/Control:	State Government

STAFFING

Interns and Residents:	0
Registered Nurses:	21
Licensed Practical Nurses:	6

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

LANAI COMM HOSP

628 7TH STREET P O BOX 797
LANAI CITY, HI 96763

Medicare Hospital Provider Number: 120015

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	22	14	5 - 38	22	0	10 - 27
Cancer	0	-	-	1	0	3 - 98
Cerebrovascular Accidents	0	-	-	2	0	8 - 92
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	1	0	0 - 98	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	2	0	1 - 90	1	0	0 - 99
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	1	0	0 - 98	0	-	-
Severe Chronic Heart Disease	2	0	3 - 88	0	-	-
Severe Trauma	0	-	-	1	0	0 -100
Gastrointestinal Disease	0	-	-	1	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	1	0	0 -100	2	0	0 -100
Musculoskeletal/Skin Conditions	4	0	0 -100	3	0	0 -100
Neuropsychiatric/Sensory Disease	0	-	-	0	-	-
Urologic Disease	0	-	-	1	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1986

Total Beds (#):	6
Ownership/Control:	State Government

STAFFING

Interns and Residents:	0
Registered Nurses:	6
Licensed Practical Nurses:	0

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

MAUI MEMORIAL HOSPITAL

221 MAHALANI STREET
WAILUKU, HI 96793

Medicare Hospital Provider Number: 120002

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,190	9	9 - 14	1,226	11	9 - 14
Cancer	32	66	29 - 63	32	28	22 - 55
Cerebrovascular Accidents	60	15	14 - 34	68	21	13 - 34
Gastrointestinal Catastrophes	9	44	7 - 68	13	38	14 - 66
Infectious Disease	11	18	11 - 60	20	30	21 - 62
Metabolic/Electrolyte Disorders	18	39	8 - 54	13	31	6 - 58
Pulmonary Disease	74	15	14 - 34	65	28	15 - 39
Renal Failure	5	0	7 - 71	9	22	8 - 71
Severe Acute Heart Disease	50	46	24 - 53	48	42	25 - 54
Severe Chronic Heart Disease	60	12	14 - 32	59	22	14 - 37
Severe Trauma	1	0	0 - 97	6	33	5 - 74
Gastrointestinal Disease	102	0	1 - 6	115	2	1 - 9
Gynecologic Disease	7	0	0 -100	6	0	0 -100
Low-Risk Heart Disease	116	3	1 - 9	122	4	1 - 10
Musculoskeletal/Skin Conditions	102	1	1 - 8	105	1	0 - 9
Neuropsychiatric/Sensory Disease	47	0	0 - 25	48	0	0 - 23
Urologic Disease	47	0	0 - 26	44	0	0 - 17

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	145
Occupancy Rate (%):	72
Ownership/Control:	State Government

STAFFING

Total Number of Physicians:	138
Percent of Physicians Who Are Board Certified Specialists:	52
Interns and Residents:	0
Registered Nurses:	130
Licensed Practical Nurses:	52

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

MOLOKAI GENERAL HOSPITAL

P O BOX 408
KAUNAKAKI, HI 96748

Medicare Hospital Provider Number: 120009

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	42	10	8 - 28	66	12	8 - 25
Cancer	0	-	-	2	100	8 - 92
Cerebrovascular Accidents	1	0	0 -100	1	0	1 - 97
Gastrointestinal Catastrophes	1	100	1 - 97	0	-	-
Infectious Disease	1	0	1 - 97	1	0	0 - 97
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	9	11	11 - 59	10	10	8 - 53
Renal Failure	0	-	-	1	100	2 - 97
Severe Acute Heart Disease	1	0	0 - 98	0	-	-
Severe Chronic Heart Disease	3	0	1 - 81	7	0	8 - 54
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	1	0	0 -100	4	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	1	0	0 -100	8	0	0 - 93
Musculoskeletal/Skin Conditions	7	0	0 - 90	7	0	0 -100
Neuropsychiatric/Sensory Disease	1	0	0 -100	1	0	0 -100
Urologic Disease	0	-	-	2	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	30
Occupancy Rate (%):	53
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	31
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

QUEENS MEDICAL CENTER THE

1301 PUNCHBOWL ST
HONOLULU, HI 96813

Medicare Hospital Provider Number: 120001

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	3,370	10	10 - 14	3,336	10	9 - 13
Cancer	160	30	30 - 50	151	32	31 - 52
Cerebrovascular Accidents	187	21	18 - 32	159	21	18 - 33
Gastrointestinal Catastrophes	20	30	11 - 54	14	14	14 - 57
Infectious Disease	43	37	23 - 55	27	37	20 - 58
Metabolic/Electrolyte Disorders	52	25	13 - 43	46	33	16 - 48
Pulmonary Disease	155	24	19 - 36	168	23	17 - 34
Renal Failure	11	18	9 - 67	5	60	9 - 84
Severe Acute Heart Disease	129	35	26 - 45	114	34	30 - 50
Severe Chronic Heart Disease	159	25	16 - 31	124	20	15 - 31
Severe Trauma	12	17	9 - 57	16	19	8 - 53
Gastrointestinal Disease	161	2	1 - 7	174	3	1 - 8
Gynecologic Disease	32	0	0 -100	20	0	0 -100
Low-Risk Heart Disease	427	4	2 - 6	473	4	2 - 6
Musculoskeletal/Skin Conditions	311	1	1 - 5	329	1	1 - 4
Neuropsychiatric/Sensory Disease	212	0	0 - 6	228	2	0 - 7
Urologic Disease	198	1	0 - 7	184	1	0 - 7

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	443
Occupancy Rate (%):	85
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

ST FRANCIS HOSPITAL

2230 LILIHA STREET
HONOLULU, HI 96817

Medicare Hospital Provider Number: 120010

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,617	12	11 - 16	1,747	12	11 - 16
Cancer	69	36	28 - 55	62	29	28 - 54
Cerebrovascular Accidents	90	19	16 - 34	112	21	18 - 35
Gastrointestinal Catastrophes	10	30	16 - 70	21	24	12 - 52
Infectious Disease	43	26	23 - 53	37	27	20 - 52
Metabolic/Electrolyte Disorders	22	27	7 - 48	19	21	15 - 55
Pulmonary Disease	93	32	17 - 38	97	23	18 - 38
Renal Failure	42	7	9 - 53	59	12	7 - 54
Severe Acute Heart Disease	62	34	27 - 52	65	35	28 - 53
Severe Chronic Heart Disease	69	14	14 - 32	71	28	12 - 35
Severe Trauma	9	22	9 - 65	5	20	6 - 75
Gastrointestinal Disease	91	4	1 - 14	94	2	1 - 10
Gynecologic Disease	4	0	0 -100	2	0	0 -100
Low-Risk Heart Disease	161	3	1 - 8	162	4	2 - 9
Musculoskeletal/Skin Conditions	97	4	1 - 12	132	5	1 - 11
Neuropsychiatric/Sensory Disease	48	0	0 - 16	70	0	0 - 9
Urologic Disease	98	2	0 - 23	79	4	0 - 26

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	211
Occupancy Rate (%):	92
Ownership/Control:	Church

STAFFING

Total Number of Physicians:	126
Percent of Physicians Who Are Board Certified Specialists:	66
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	Yes
Hospice Care:	No

STRAUB HOSPITAL

888 SO KING STREET
HONOLULU, HI 96813

Medicare Hospital Provider Number: 120022

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	1,820	10	9 - 14	1,757	10	10 - 14
Cancer	63	35	26 - 53	55	38	33 - 62
Cerebrovascular Accidents	85	16	16 - 34	81	23	18 - 38
Gastrointestinal Catastrophes	17	18	11 - 52	11	36	10 - 65
Infectious Disease	21	29	13 - 53	22	27	16 - 56
Metabolic/Electrolyte Disorders	29	28	19 - 55	28	43	18 - 57
Pulmonary Disease	65	31	17 - 42	50	32	16 - 43
Renal Failure	2	50	7 - 96	5	20	7 - 79
Severe Acute Heart Disease	78	35	27 - 50	76	22	28 - 49
Severe Chronic Heart Disease	83	23	14 - 33	68	21	14 - 35
Severe Trauma	10	30	7 - 64	11	36	8 - 64
Gastrointestinal Disease	95	2	1 - 10	81	5	0 - 18
Gynecologic Disease	12	0	0 -100	13	0	0 -100
Low-Risk Heart Disease	249	2	2 - 6	242	2	1 - 6
Musculoskeletal/Skin Conditions	170	3	0 - 9	152	1	0 - 7
Neuropsychiatric/Sensory Disease	65	2	0 - 20	92	2	0 - 13
Urologic Disease	87	1	0 - 28	89	0	0 - 8

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	159
Occupancy Rate (%):	89
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	139
Percent of Physicians Who Are Board Certified Specialists:	76
Interns and Residents:	0
Registered Nurses:	202
Licensed Practical Nurses:	32

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	Yes
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

WAHIAWA GENERAL HOSPITAL

128 LEHUA STREET
WAHIAWA, HI 96786

Medicare Hospital Provider Number: 120004

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	602	14	12 - 19	555	13	12 - 18
Cancer	16	38	20 - 66	15	60	22 - 70
Cerebrovascular Accidents	28	18	16 - 46	39	23	13 - 41
Gastrointestinal Catastrophes	8	50	12 - 74	7	14	10 - 67
Infectious Disease	10	40	14 - 70	6	33	8 - 75
Metabolic/Electrolyte Disorders	19	32	10 - 54	12	42	10 - 64
Pulmonary Disease	34	21	14 - 44	45	20	12 - 38
Renal Failure	6	17	20 - 86	8	50	12 - 80
Severe Acute Heart Disease	35	34	28 - 60	40	30	26 - 55
Severe Chronic Heart Disease	27	30	11 - 46	27	19	12 - 43
Severe Trauma	4	0	12 - 77	3	0	4 - 79
Gastrointestinal Disease	38	0	0 - 18	31	3	0 - 36
Gynecologic Disease	4	0	0 -100	7	0	0 -100
Low-Risk Heart Disease	68	3	1 - 13	31	0	1 - 19
Musculoskeletal/Skin Conditions	34	6	0 - 42	55	2	1 - 13
Neuropsychiatric/Sensory Disease	11	0	0 - 96	10	0	0 - 99
Urologic Disease	30	3	0 - 95	35	3	0 - 72

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	162
Occupancy Rate (%):	(not available)
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	(not available)
Burn Unit:	(not available)
Medical/Surgical Intensive Care:	(not available)
Cardiac Intensive Care:	(not available)
Organ Transplant Service:	(not available)
Hospice Care:	(not available)

ADELSON HOSPICE-NATHAN SPECIALTY HOS

4141 SOUTH SWENSON
LAS VEGAS, NV 89109

Medicare Hospital Provider Number: 290033

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	168	93	36 - 44	225	86	37 - 47
Cancer	93	95	42 - 59	114	89	45 - 63
Cerebrovascular Accidents	0	-	-	1	100	0 - 98
Gastrointestinal Catastrophes	1	100	2 - 98	4	100	19 - 82
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	7	71	14 - 76	19	74	23 - 65
Pulmonary Disease	0	-	-	4	100	21 - 84
Renal Failure	1	100	3 - 98	2	100	11 - 98
Severe Acute Heart Disease	1	100	2 -100	1	100	2 -100
Severe Chronic Heart Disease	2	100	3 - 88	2	100	9 - 92
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	1	100	0 -100	1	100	0 - 98
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	0	-	-	0	-	-
Musculoskeletal/Skin Conditions	1	100	2 - 97	3	67	0 -100
Neuropsychiatric/Sensory Disease	1	100	0 - 98	4	100	3 - 71
Urologic Disease	1	0	0 -100	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1986

Total Beds (#):	20
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	15
Licensed Practical Nurses:	3

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

BATTLE MOUNTAIN GEN HOSP

6TH AND HUMBOLDT STREET
BATTLE MOUNTAIN, NV 89820

Medicare Hospital Provider Number: 290013

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	28	18	4 - 36	20	15	7 - 41
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	1	100	0 - 98	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	2	0	0 - 95	0	-	-
Pulmonary Disease	2	0	1 - 91	4	25	6 - 80
Renal Failure	0	-	-	1	0	1 - 97
Severe Acute Heart Disease	2	50	1 - 92	2	0	7 - 91
Severe Chronic Heart Disease	2	50	3 - 92	1	0	0 -100
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	2	0	0 -100	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	7	29	0 - 97	0	-	-
Musculoskeletal/Skin Conditions	0	-	-	0	-	-
Neuropsychiatric/Sensory Disease	1	0	0 -100	0	-	-
Urologic Disease	0	-	-	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	15
Occupancy Rate (%):	47
Ownership/Control:	District/Authority

STAFFING

Total Number of Physicians:	2
Percent of Physicians Who Are Board Certified Specialists:	100
Interns and Residents:	0
Registered Nurses:	7
Licensed Practical Nurses:	3

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

BOULDER CITY HOSPITAL

901 ADAMS BOULEVARD
BOULDER CITY, NV 89005

Medicare Hospital Provider Number: 290010

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	184	10	8 - 18	219	5	8 - 15
Cancer	4	75	12 - 85	2	100	11 - 96
Cerebrovascular Accidents	10	20	7 - 58	7	14	8 - 65
Gastrointestinal Catastrophes	0	-	-	2	0	1 - 90
Infectious Disease	3	33	6 - 87	4	0	11 - 74
Metabolic/Electrolyte Disorders	1	0	0 - 98	1	0	1 - 97
Pulmonary Disease	29	7	12 - 36	33	9	13 - 37
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	5	60	11 - 82	6	17	18 - 79
Severe Chronic Heart Disease	11	9	5 - 49	7	14	6 - 63
Severe Trauma	1	0	0 - 99	0	-	-
Gastrointestinal Disease	7	0	0 - 99	17	0	0 - 93
Gynecologic Disease	1	0	0 -100	0	-	-
Low-Risk Heart Disease	29	0	1 - 18	43	2	0 - 21
Musculoskeletal/Skin Conditions	8	0	0 -100	17	0	0 - 88
Neuropsychiatric/Sensory Disease	1	0	0 -100	3	0	0 -100
Urologic Disease	12	8	0 -100	14	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	35
Occupancy Rate (%):	27
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	19
Percent of Physicians Who Are Board Certified Specialists:	21
Interns and Residents:	0
Registered Nurses:	23
Licensed Practical Nurses:	4

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

CARE UNIT HOSP OF NEVADA

5100 W SAHARA
LAS VEGAS, NV 89102

Medicare Hospital Provider Number: 290034

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	26	0	0 - 94	39	0	0 - 30
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	0	-	-	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	0	-	-	0	-	-
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	0	-	-	0	-	-
Severe Chronic Heart Disease	0	-	-	0	-	-
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	0	-	-	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	0	-	-	0	-	-
Musculoskeletal/Skin Conditions	0	-	-	0	-	-
Neuropsychiatric/Sensory Disease	26	0	0 - 94	39	0	0 - 30
Urologic Disease	0	-	-	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1986

Total Beds (#):	50
Ownership/Control:	Private, For Profit

STAFFING

Interns and Residents:	0
Registered Nurses:	12
Licensed Practical Nurses:	7

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

CARSON-TAHOE HOSPITAL

1201 N MOUNTAIN ST
CARSON CITY, NV 89701

Medicare Hospital Provider Number: 290019

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	886	15	8 - 13	889	15	9 - 15
Cancer	22	59	16 - 57	37	57	28 - 61
Cerebrovascular Accidents	40	35	15 - 45	37	38	14 - 45
Gastrointestinal Catastrophes	7	14	8 - 66	11	55	8 - 64
Infectious Disease	7	57	6 - 72	8	25	6 - 66
Metabolic/Electrolyte Disorders	19	26	8 - 51	12	17	6 - 54
Pulmonary Disease	58	33	13 - 39	46	41	11 - 41
Renal Failure	3	100	10 - 85	4	75	9 - 86
Severe Acute Heart Disease	32	44	19 - 53	49	43	22 - 51
Severe Chronic Heart Disease	29	38	9 - 44	39	26	11 - 40
Severe Trauma	1	0	0 - 99	0	-	-
Gastrointestinal Disease	69	4	0 - 23	65	0	1 - 9
Gynecologic Disease	11	0	0 -100	4	0	0 -100
Low-Risk Heart Disease	89	6	1 - 15	96	0	1 - 6
Musculoskeletal/Skin Conditions	72	1	0 - 12	51	0	0 - 13
Neuropsychiatric/Sensory Disease	22	0	0 - 93	43	7	0 - 94
Urologic Disease	68	4	0 - 58	59	0	0 - 43

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	108
Occupancy Rate (%):	46
Ownership/Control:	Local Government

STAFFING

Total Number of Physicians:	62
Percent of Physicians Who Are Board Certified Specialists:	69
Interns and Residents:	0
Registered Nurses:	83
Licensed Practical Nurses:	18

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	No
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

CARSON-TAHOE HOSPITAL

CARSON-TAHOE HOSPITAL
775 FLEISCHMANN WAY
POST OFFICE BOX 2168
CARSON CITY, NEVADA 89702-2168
702 / 882-1361

CARSON VALLEY EMERGENCY
HEALTH CENTER
1538 HIGHWAY 395
POST OFFICE BOX 1678
GARDNERVILLE, NEVADA 89410-1678
702 / 782-8181

October 19, 1988

Re: Mortality Statistics - January 1987 throught December 1987.

Thank you for this opportunity to respond to the release of data on hospital mortality statistics.

The data has been carefully reviewed and the validity of the statistics was verified and found to be accurate.

On an ongoing basis, appropriate medical staff committees review each mortality in our facility for appropriateness of care.

Although the actual mortality rate in the cancer category is above the predicted range, it is to be noted that the statistics for cancer care at Carson-Tahoe Hospital represent admission at the initial or diagnostic phase of the disease and again during the terminal phase. Patients are referred to other facilities with oncology services for the therapeutic phase of their disease. This results in a lower overall annual admission of patients in this category which skew the statistics.

Death in this category was reviewed and it was determined in each case, that the care was appropriate and death was not unexpected at the time of admission.

In the renal failure category, three cases were admitted and treated. In review of these cases, it was determined that all three patients had multiple system failure and an expected high mortality rate on admission.

In the all causes category, the actual mortality rate was slightly above the predicted range. It is important to note that with the exception of the two categories previously mentioned, all diagnostic categories were substantially lower than the predicted range.

The members of the Medical Executive Committee and Administration of Carson-Tahoe Hospital recognize the importance of these statistics and are committed to carefully monitoring to identify trends and patterns.

Sincerely,

Robert Basta, M.D.

CHURCHILL PUBLIC HOSPITAL

155 N TAYLOR ST
FALLON, NV 89406

Medicare Hospital Provider Number: 290006

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	196	15	8 - 19	251	13	9 - 19
Cancer	3	67	9 - 89	3	0	3 - 79
Cerebrovascular Accidents	6	17	7 - 69	12	33	11 - 62
Gastrointestinal Catastrophes	0	-	-	3	33	2 - 86
Infectious Disease	3	33	1 - 88	6	33	15 - 81
Metabolic/Electrolyte Disorders	9	33	13 - 71	11	18	2 - 59
Pulmonary Disease	24	29	7 - 45	30	20	9 - 41
Renal Failure	0	-	-	1	100	2 - 98
Severe Acute Heart Disease	6	33	9 - 75	7	29	11 - 72
Severe Chronic Heart Disease	20	25	9 - 48	21	24	14 - 51
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	10	10	0 -100	18	0	0 - 91
Gynecologic Disease	0	-	-	1	0	0 -100
Low-Risk Heart Disease	42	7	0 - 34	47	0	1 - 12
Musculoskeletal/Skin Conditions	10	0	0 -100	12	8	0 - 86
Neuropsychiatric/Sensory Disease	11	0	0 -100	3	0	0 -100
Urologic Disease	8	0	0 - 92	9	0	0 - 98

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	40
Occupancy Rate (%):	25
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

COMMUNITY HOSPITAL OF NO LAS VEGAS

1409 EAST LAKE MEAD BLVD
NORTH LAS VEGAS, NV 89030

Medicare Hospital Provider Number: 290005

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	721	20	10 - 17	673	19	10 - 17
Cancer	14	43	16 - 65	18	33	18 - 61
Cerebrovascular Accidents	26	35	10 - 47	32	31	13 - 46
Gastrointestinal Catastrophes	12	25	13 - 63	7	43	7 - 72
Infectious Disease	14	57	17 - 67	15	40	18 - 66
Metabolic/Electrolyte Disorders	9	44	3 - 68	15	20	3 - 52
Pulmonary Disease	103	39	15 - 36	92	33	15 - 37
Renal Failure	3	100	13 - 88	4	100	17 - 85
Severe Acute Heart Disease	25	48	15 - 54	22	50	18 - 59
Severe Chronic Heart Disease	30	33	10 - 44	30	47	13 - 48
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	47	4	0 - 22	50	4	0 - 28
Gynecologic Disease	7	0	0 -100	5	0	0 -100
Low-Risk Heart Disease	90	3	0 - 13	83	8	0 - 21
Musculoskeletal/Skin Conditions	36	3	0 - 42	41	7	0 - 46
Neuropsychiatric/Sensory Disease	5	0	0 -100	8	0	0 - 97
Urologic Disease	21	10	0 - 94	19	5	0 - 97

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	163
Occupancy Rate (%):	29
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	66
Percent of Physicians Who Are Board Certified Specialists:	68
Interns and Residents:	0
Registered Nurses:	94
Licensed Practical Nurses:	13

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

Community Hospital

October 25, 1988

Mr. William L. Roper
Administrator, HCFA
Health Standards & Quality Bureau
Meadows East Building 2-D-2
6325 Security Boulevard
Baltimore, MD 21207

Re: Hospital ID #:
290005

Dear Dr. Roper:

Thank you for the opportunity to respond to the HCFA Mortality data prior to its publication. We feel our comments will put your information in a better perspective.

Community Hospital operates a 28-bed Geriatric Care Unit which specializes in the care of nursing home patients who have chronic multiple medical problems and need constant medical attention. About two thirds of our Medicare admissions were either from skilled nursing facilities, or went to a skilled facility upon discharge.

Of the 146 deaths studied, 31% had "Do Not Resuscitate" orders upon admission and were treated to make the patient comfortable as death was expected. If you studied only those cases where curative treatment was sought, the overall mortality rate would be 14%, right in the middle of the expected range. The mortality rates for specific DRG's would drop accordingly.

In addition, when a patient was admitted more than once, HCFA ignores the admissions which did not result in death. Counting only those cases that result in death will obviously result in a higher mortality rate. HCFA counted only 721 cases out of 1352 Medicare admissions in 1987 for Community Hospital. Assuming HCFA's data is correct, 47% of our admissions, none of which resulted in mortality, were ignored. If all Medicare admissions were compared to deaths where the patient sought curative results, our mortality rate would be 7.5% for patients whose average age was 78.4 years.

We believe these factors should be considered in reviewing and discussing "Mortality Rates" with the public.

Sincerely,

Brian Bentley

BRIAN BENTLEY

DESERT SPRINGS HOSPITAL

2075 EAST FLAMINGO ROAD
LAS VEGAS, NV 89119

Medicare Hospital Provider Number: 290022

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,204	8	8 - 12	1,953	9	9 - 13
Cancer	55	35	26 - 54	46	33	27 - 56
Cerebrovascular Accidents	73	25	15 - 37	67	22	16 - 37
Gastrointestinal Catastrophes	22	50	18 - 61	18	39	14 - 60
Infectious Disease	27	22	24 - 58	11	27	10 - 62
Metabolic/Electrolyte Disorders	35	26	9 - 43	41	20	12 - 42
Pulmonary Disease	85	20	15 - 35	96	14	15 - 33
Renal Failure	10	30	9 - 71	9	56	15 - 81
Severe Acute Heart Disease	78	27	24 - 46	95	26	25 - 45
Severe Chronic Heart Disease	115	26	14 - 31	95	18	13 - 30
Severe Trauma	3	0	2 - 80	3	67	5 - 87
Gastrointestinal Disease	126	1	1 - 7	128	2	1 - 9
Gynecologic Disease	20	0	0 -100	6	0	0 -100
Low-Risk Heart Disease	408	4	1 - 6	325	2	2 - 6
Musculoskeletal/Skin Conditions	269	1	1 - 5	284	1	1 - 4
Neuropsychiatric/Sensory Disease	20	5	0 - 70	24	0	0 - 55
Urologic Disease	127	2	0 - 15	63	5	0 - 44

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	190
Occupancy Rate (%):	70
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	506
Percent of Physicians Who Are Board Certified Specialists:	55
Interns and Residents:	0
Registered Nurses:	150
Licensed Practical Nurses:	31

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

DESERT SPRINGS HOSPITAL

2075 East Flamingo Road, Las Vegas, Nevada 89119
702 - 733-8800

Steven J. Peterson
Administrator

September 30, 1988

Department of Health & Human Services
Health Care Financing Administration
Health Standards and Quality Bureau
Meadows East Building, 2 - D - 2
6325 Security Boulevard
Baltimore, Maryland 21207

Attention: Sandra Kappert

Dear Ms. Kappert,

We are in receipt of 1987's Mortality Statistics.

Please be advised that we have reviewed them and do not have any problems with them.

Sincerely,

Texas Gustavson
Assistant Administrator/
Patient Care Services

TG:rac

ELKO GENERAL HOSP

1297 COLLEGE AVE
ELKO, NV 89801

Medicare Hospital Provider Number: 290008

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	291	13	7 - 16	298	10	7 - 15
Cancer	13	62	20 - 70	6	33	7 - 74
Cerebrovascular Accidents	7	14	4 - 63	8	25	7 - 65
Gastrointestinal Catastrophes	3	33	2 - 86	3	33	2 - 87
Infectious Disease	5	60	4 - 78	3	67	6 - 87
Metabolic/Electrolyte Disorders	7	0	6 - 54	7	14	2 - 66
Pulmonary Disease	25	20	8 - 42	16	25	6 - 51
Renal Failure	2	50	4 - 93	0	-	-
Severe Acute Heart Disease	6	67	9 - 75	9	56	16 - 74
Severe Chronic Heart Disease	15	13	9 - 47	12	25	8 - 57
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	21	0	0 - 72	29	7	0 - 56
Gynecologic Disease	4	0	0 -100	2	0	0 -100
Low-Risk Heart Disease	26	4	1 - 30	29	0	1 - 18
Musculoskeletal/Skin Conditions	26	4	0 - 77	36	0	1 - 16
Neuropsychiatric/Sensory Disease	14	0	0 - 74	10	0	0 -100
Urologic Disease	26	0	0 - 94	20	0	0 - 97

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	50
Occupancy Rate (%):	44
Ownership/Control:	Local Government

STAFFING

Total Number of Physicians:	16
Percent of Physicians Who Are Board Certified Specialists:	63
Interns and Residents:	0
Registered Nurses:	49
Licensed Practical Nurses:	8

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

GROVER C DILS MED CTR

HIGHWAY 93 NORTH
CALIENTE, NV 89008

Medicare Hospital Provider Number: 290027

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	45	18	5 - 29	48	12	12 - 32
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	1	0	2 - 97	2	0	2 - 89
Gastrointestinal Catastrophes	1	100	1 - 97	2	0	1 - 90
Infectious Disease	0	-	-	1	0	0 - 98
Metabolic/Electrolyte Disorders	1	0	0 - 99	0	-	-
Pulmonary Disease	10	30	4 - 61	10	20	10 - 61
Renal Failure	0	-	-	1	100	2 -100
Severe Acute Heart Disease	3	67	3 - 86	5	40	11 - 81
Severe Chronic Heart Disease	3	0	2 - 80	0	-	-
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	2	50	0 -100	1	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	6	0	0 -100	7	0	0 - 83
Musculoskeletal/Skin Conditions	0	-	-	0	-	-
Neuropsychiatric/Sensory Disease	1	0	0 -100	4	0	0 -100
Urologic Disease	0	-	-	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1987

Total Beds (#):	8
Ownership/Control:	Local Government

STAFFING

Interns and Residents:	0
Registered Nurses:	3
Licensed Practical Nurses:	2

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

HUMANA HOSPITAL SUNRISE

3186 S MARYLAND PKWY
LAS VEGAS, NV 89109

Medicare Hospital Provider Number: 290003

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	3,636	11	10 - 14	3,593	11	10 - 14
Cancer	170	34	31 - 51	149	26	28 - 48
Cerebrovascular Accidents	115	25	17 - 35	116	22	19 - 37
Gastrointestinal Catastrophes	28	36	18 - 56	48	40	18 - 50
Infectious Disease	51	31	25 - 54	35	51	20 - 56
Metabolic/Electrolyte Disorders	59	27	17 - 46	64	27	14 - 41
Pulmonary Disease	206	23	16 - 32	207	23	15 - 31
Renal Failure	30	23	17 - 66	20	30	14 - 68
Severe Acute Heart Disease	154	31	28 - 45	166	28	27 - 44
Severe Chronic Heart Disease	184	32	14 - 29	170	25	16 - 31
Severe Trauma	7	14	7 - 66	8	25	7 - 67
Gastrointestinal Disease	226	1	1 - 6	236	2	1 - 6
Gynecologic Disease	27	0	0 - 98	27	0	0 -100
Low-Risk Heart Disease	489	2	1 - 5	562	4	2 - 6
Musculoskeletal/Skin Conditions	340	2	1 - 5	286	2	0 - 6
Neuropsychiatric/Sensory Disease	152	3	0 - 9	108	4	1 - 12
Urologic Disease	151	1	0 - 11	160	2	0 - 8

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	679
Occupancy Rate (%):	50
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

3186 Maryland Parkway
P.O. Box 14157
Las Vegas, Nevada
89109
Telephone 702/731-8012

Donald L. Stewart
Executive Director

Humana Hospital Sunrise

October 20, 1988

Mrs. Sandra Kappert
Health Standards and Quality Bureau, HCFA
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland 21207

Dear Mrs. Kappert:

I appreciate the opportunity to comment on the Medicare patient mortality data and the hospital profile characteristics to be published by the Health Care Financing Administration. The information does serve as a part of this hospital's and the health care industry's ongoing quality assurance program.

HCFA's efforts to provide our hospital specifically, and the health care industry in general with quality assurance information should be commended.

I also appreciate your public position that, even though attempts have been made to further refine the manipulation of the data, this information is limited and cannot be used as a complete measure of quality.

I am very proud of the quality assurance program that is in place at Humana Hospital Sunrise; it is well-established and includes routine review by the Joint Commission on Accreditation of Healthcare Organizations and other outside review agencies, ongoing utilization review, quality assurance, in-hospital morbidity and mortality reviews and analyses of all inpatient mortality.

The raw numbers that you have provided in this release further assist us in confirming our records and in analyzing Medicare patient mortality.

The Medical Records and Quality Assurance Departments have reviewed the statistics provided by HCFA. Since some of the deaths attributed to patients in our hospital occurred after discharge, we have been unable to completely validate the data. By category, the number of patients in many cases is too limited to provide a valid statistical analysis. Additionally, predicted ranges have been developed in such a complex and unverifiable way, it would be useless to consider them "standard" ranges.

I also am concerned that the information listed under "Hospital Characteristics" contains inaccurate figures and facts inconsistent with our hospital records and facility description. Thus we are unable to confirm any of that data.

Specifically, all categories listed were reviewed, and we are well within the predicted mortality range in all categories except "Severe Chronic Heart Disease," where we are shown to be three percent above the range for predicted mortalities. After review of all the deaths within thirty days of admission in this category, we have discovered some important demographic and medical facts which impact significantly on our ability to fall within the predicted range of that category.

1. Forty-three of the fifty-nine patients (72%) who died were seventy years of age or older.

2. Forty-one of the patients (68%) had major co-morbidities such as COPD, diabetes, metastatic carcinoma, renal failure, and sepsis.

3. Forty-seven of the patients (80%) were admitted through the Emergency Room.

All three of these findings indicate that the population served by our facility is elderly, severely ill with other significant diseases and in a crisis situation prior to applying for care. Since Humana Hospital Sunrise is the largest and one of the most complex facilities in the area, we tend to serve those patients who are the most ill and the most fragile.

We stand ready to aid our community in reviewing this very complex data and explaining how this type of information is used to affirm and improve the quality of health care services.

Sincerely,

Donald L. Stewart
President

DLS/cbs

HUMBOLDT GENERAL HOSPITAL

118 EAST HASKELL STREET
WINNEMUCCA, NV 89445

Medicare Hospital Provider Number: 290016

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	45	13	6 - 28	59	19	7 - 28
Cancer	1	0	1 - 97	3	100	16 - 88
Cerebrovascular Accidents	1	0	0 - 98	1	100	0 - 98
Gastrointestinal Catastrophes	1	0	0 - 99	0	-	-
Infectious Disease	1	100	1 - 97	0	-	-
Metabolic/Electrolyte Disorders	1	100	3 - 98	3	33	1 - 87
Pulmonary Disease	6	33	1 - 77	6	17	2 - 70
Renal Failure	0	-	-	1	0	3 - 98
Severe Acute Heart Disease	2	0	6 - 90	5	20	15 - 81
Severe Chronic Heart Disease	4	25	2 - 81	5	20	2 - 76
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	3	0	0 -100	7	14	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	2	0	0 -100	6	0	0 -100
Musculoskeletal/Skin Conditions	2	0	0 -100	4	0	0 -100
Neuropsychiatric/Sensory Disease	2	0	0 -100	2	0	0 -100
Urologic Disease	1	0	0 -100	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	32
Occupancy Rate (%):	53
Ownership/Control:	District/Authority

STAFFING

Total Number of Physicians:	6
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

LAKESIDE COMMUNITY HOSP

880 ALDER AVE
INCLINE VILLAGE, NV 89450

Medicare Hospital Provider Number: 290031

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	59	2	4 - 14	71	4	4 - 16
Cancer	0	-	-	1	0	1 - 97
Cerebrovascular Accidents	0	-	-	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	2	50	4 - 93
Metabolic/Electrolyte Disorders	1	0	0 -100	2	50	0 - 95
Pulmonary Disease	3	0	1 - 84	3	0	3 - 79
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	4	0	6 - 71	3	33	2 - 86
Severe Chronic Heart Disease	5	0	2 - 65	2	0	0 - 94
Severe Trauma	0	-	-	1	0	0 - 98
Gastrointestinal Disease	4	25	0 -100	5	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	6	0	0 -100	12	0	0 - 92
Musculoskeletal/Skin Conditions	6	0	0 -100	11	0	0 -100
Neuropsychiatric/Sensory Disease	1	0	0 -100	2	0	0 -100
Urologic Disease	1	0	0 -100	4	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1987

Total Beds (#):	28
Ownership/Control:	Private, Non-profit

STAFFING

Interns and Residents:	0
Registered Nurses:	18
Licensed Practical Nurses:	0

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

MT GRANT GENERAL HOSPITAL

FIRST AND A STREETS
HAWTHORNE, NV 89415

Medicare Hospital Provider Number: 290015

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	73	8	5 - 20	88	15	7 - 23
Cancer	1	100	2 - 97	4	50	10 - 86
Cerebrovascular Accidents	0	-	-	2	100	3 - 88
Gastrointestinal Catastrophes	0	-	-	1	100	0 - 99
Infectious Disease	1	0	0 - 97	0	-	-
Metabolic/Electrolyte Disorders	3	0	1 - 86	1	0	0 - 99
Pulmonary Disease	9	0	9 - 47	11	27	11 - 62
Renal Failure	0	-	-	1	100	1 - 97
Severe Acute Heart Disease	1	0	3 - 99	2	50	4 - 93
Severe Chronic Heart Disease	3	0	2 - 80	3	0	2 - 80
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	8	13	0 -100	4	0	0 -100
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	15	0	0 - 78	8	0	0 -100
Musculoskeletal/Skin Conditions	3	0	0 -100	6	0	0 - 98
Neuropsychiatric/Sensory Disease	3	0	0 -100	4	0	0 -100
Urologic Disease	1	0	0 -100	3	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	53
Occupancy Rate (%):	(not available)
Ownership/Control:	Local Government

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	(not available)
Burn Unit:	(not available)
Medical/Surgical Intensive Care:	(not available)
Cardiac Intensive Care:	(not available)
Organ Transplant Service:	(not available)
Hospice Care:	(not available)

NYE GENERAL HOSPITAL

825 S MAIN ST
TONOPAH , NV 89049

Medicare Hospital Provider Number: 290020

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	47	0	6 - 15	53	13	5 - 25
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	1	0	0 - 98	0	-	-
Gastrointestinal Catastrophes	0	-	-	2	0	3 - 88
Infectious Disease	1	0	2 -100	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	4	0	2 - 72	4	25	2 - 81
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	1	0	1 - 97	2	50	8 - 97
Severe Chronic Heart Disease	0	-	-	3	33	1 - 90
Severe Trauma	0	-	-	1	0	0 - 99
Gastrointestinal Disease	4	0	0 -100	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	9	0	0 - 87	9	11	0 - 91
Musculoskeletal/Skin Conditions	4	0	0 -100	5	0	0 -100
Neuropsychiatric/Sensory Disease	2	0	0 -100	2	50	0 -100
Urologic Disease	0	-	-	4	0	0 - 84

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	45
Occupancy Rate (%):	56
Ownership/Control:	Local Government

STAFFING

Total Number of Physicians:	4
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	0
Registered Nurses:	5
Licensed Practical Nurses:	4

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

OWYHEE PHS INDIAN HEALTH SERVICE HOS

BOX 212
OWYHEE, NV 89832

Medicare Hospital Provider Number: 290029

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	21	5	4 - 30	16	0	2 - 28
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	2	0	1 - 90	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	1	0	1 - 97	1	0	0 -100
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	1	100	2 - 97	0	-	-
Severe Chronic Heart Disease	2	0	1 - 90	2	0	1 - 91
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	2	0	0 -100	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	3	0	0 - 99	1	0	0 -100
Musculoskeletal/Skin Conditions	0	-	-	2	0	0 - 97
Neuropsychiatric/Sensory Disease	1	0	0 -100	2	0	0 -100
Urologic Disease	1	0	0 -100	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1986

Total Beds (#):	15
Ownership/Control:	Federal Government

STAFFING

Interns and Residents:	0
Registered Nurses:	9
Licensed Practical Nurses:	4

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

PERSHING GENERAL HOSP

855 6TH ST
LOVELOCK, NV 89419

Medicare Hospital Provider Number: 290011

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	21	19	2 - 42	23	4	4 - 28
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	0	-	-	1	0	0 - 98
Gastrointestinal Catastrophes	0	-	-	1	0	0 - 99
Infectious Disease	0	-	-	2	0	1 - 89
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	4	0	2 - 72	1	0	0 - 99
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	0	-	-	2	0	3 - 88
Severe Chronic Heart Disease	3	67	0 - 95	0	-	-
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	1	0	0 -100	0	-	-
Gynecologic Disease	0	-	-	0	-	-
Low-Risk Heart Disease	3	0	0 -100	3	0	0 -100
Musculoskeletal/Skin Conditions	1	0	0 -100	2	0	0 -100
Neuropsychiatric/Sensory Disease	1	0	0 -100	5	0	0 -100
Urologic Disease	1	0	0 -100	1	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	49
Occupancy Rate (%):	61
Ownership/Control:	District/Authority

STAFFING

Total Number of Physicians:	2
Percent of Physicians Who Are Board Certified Specialists:	50
Interns and Residents:	0
Registered Nurses:	3
Licensed Practical Nurses:	1

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

Pershing General Hospital
And Nursing Home

P.O. Box 661
855 6th Street
Lovelock, Nevada 89419
(702) 273-2621

October 21, 1988

Health Care Financing Administration
Health Standards and Quality Bureau
Meadows East Building, 2-D-2
6325 Security Boulevard
Baltimore, Maryland 21207

RE: Mortality Statistics
Medicare Provider #29-0011

Gentlemen:

It causes me some concern that I find 3 statistical errors of 7 patients reported.

The scope of information provided is too narrow.

Perhaps more attention should be directed to the patients chronic illnesses which supports the failing health of an elderly patient.

Sincerely,

Karen M. Holcher

Karen M. Holcher
Administrator

KMH/jb

enc

SO LYON COMMUNITY HOSPITAL

SURPRIZE AT WHITACRE AVE
YERINGTON, NV 89447

Medicare Hospital Provider Number: 290002

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	94	14	7 - 22	123	17	9 - 23
Cancer	2	0	8 - 92	3	100	17 - 90
Cerebrovascular Accidents	0	-	-	5	40	3 - 77
Gastrointestinal Catastrophes	2	0	3 - 88	2	50	2 - 92
Infectious Disease	2	50	2 - 92	2	50	2 - 92
Metabolic/Electrolyte Disorders	6	17	4 - 69	9	11	2 - 60
Pulmonary Disease	7	14	7 - 64	10	10	12 - 57
Renal Failure	0	-	-	1	100	1 - 97
Severe Acute Heart Disease	3	0	8 - 81	5	80	14 - 81
Severe Chronic Heart Disease	6	17	6 - 69	5	0	9 - 65
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	7	0	0 - 99	4	0	0 - 94
Gynecologic Disease	1	0	0 -100	0	-	-
Low-Risk Heart Disease	6	17	0 -100	21	10	0 - 57
Musculoskeletal/Skin Conditions	11	9	0 -100	8	0	0 - 97
Neuropsychiatric/Sensory Disease	3	0	0 -100	4	0	0 -100
Urologic Disease	1	0	0 -100	3	0	0 - 99

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	48
Occupancy Rate (%):	56
Ownership/Control:	Church

STAFFING

Total Number of Physicians:	2
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

SPARKS FAMILY HOSP

2375 PRATER WAY
SPARKS, NV 89431

Medicare Hospital Provider Number: 290032

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	701	14	9 - 15	779	11	8 - 14
Cancer	34	56	26 - 61	25	36	27 - 65
Cerebrovascular Accidents	15	13	11 - 49	16	25	11 - 53
Gastrointestinal Catastrophes	11	45	13 - 68	8	25	9 - 68
Infectious Disease	6	17	13 - 74	3	33	5 - 87
Metabolic/Electrolyte Disorders	15	20	7 - 52	20	35	14 - 57
Pulmonary Disease	44	36	11 - 41	44	14	10 - 34
Renal Failure	3	33	12 - 95	1	0	3 - 98
Severe Acute Heart Disease	37	32	21 - 53	26	27	24 - 59
Severe Chronic Heart Disease	25	16	8 - 39	33	30	10 - 42
Severe Trauma	1	0	2 - 97	2	50	1 - 93
Gastrointestinal Disease	34	9	0 - 58	55	2	0 - 18
Gynecologic Disease	7	0	0 -100	5	0	0 -100
Low-Risk Heart Disease	68	1	1 - 11	76	4	0 - 16
Musculoskeletal/Skin Conditions	65	5	0 - 32	86	2	0 - 15
Neuropsychiatric/Sensory Disease	21	0	0 - 81	16	13	0 -100
Urologic Disease	56	5	0 - 46	47	0	0 - 34

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: HCFA 1985

Total Beds (#):	140
Ownership/Control:	Private, For Profit

STAFFING

Interns and Residents:	0
Registered Nurses:	110
Licensed Practical Nurses:	9

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

Sparks Family Hospital

2375 E. Prater Way • Sparks, Nevada 89431 • (702) 331-7000

Response to Accompany HCFA Mortality Statistics

Once again HCFA is reporting mortality statistics to the public and our mortality rates are within the expected range. But, that cetainly does not preclude us from looking at each specific category to evaluate any change that has occured.

The overall slight increase in our percentage was found to be attributed to three things: 1) this year's percentage is based on less patients, so, the percentage would appear greater just based on the priniples of math; 2) the addition of another active oncologist on our staff; and 3) the overall increased acuity of our patients. Medicare, as well as, private insurance companies require that patients are "sicker" prior to being granted permission to be admitted to a hospital. Couple that with an increase in the elderly population and the statistics for all hospitals will rise. These statistics do not address the acuity of the patient and many times the patient has multiple organ failure which results in a severe decrease in the ability to get well.

Throughout the year, not just at the end, SParks Family Hospital conducts an ongoing, 100% review of all mortalities within the hospital. This review assures that all care was appropriate, met quality standards and that death was the expected outcome. No one takes death lightly, including us.

ST MARY S HOSP

235 W 6TH ST
RENO, NV 89520

Medicare Hospital Provider Number: 290009

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,006	11	9 - 14	1,967	11	9 - 13
Cancer	105	40	27 - 50	60	42	29 - 57
Cerebrovascular Accidents	57	35	15 - 40	55	35	17 - 43
Gastrointestinal Catastrophes	20	40	13 - 57	21	24	12 - 52
Infectious Disease	22	27	17 - 56	20	25	16 - 56
Metabolic/Electrolyte Disorders	27	26	11 - 48	32	16	7 - 39
Pulmonary Disease	79	23	13 - 34	82	15	14 - 33
Renal Failure	1	0	0 - 97	3	33	12 - 95
Severe Acute Heart Disease	117	38	25 - 46	99	33	27 - 48
Severe Chronic Heart Disease	82	12	14 - 30	57	23	11 - 34
Severe Trauma	3	33	4 - 86	5	20	4 - 75
Gastrointestinal Disease	119	1	1 - 7	122	3	1 - 10
Gynecologic Disease	30	3	0 -100	39	0	0 -100
Low-Risk Heart Disease	225	4	1 - 8	222	7	1 - 9
Musculoskeletal/Skin Conditions	217	0	1 - 5	279	3	0 - 7
Neuropsychiatric/Sensory Disease	62	0	0 - 11	80	0	1 - 8
Urologic Disease	46	0	0 - 21	40	0	0 - 24

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	338
Occupancy Rate (%):	60
Ownership/Control:	Church

STAFFING

Total Number of Physicians:	390
Percent of Physicians Who Are Board Certified Specialists:	90
Interns and Residents:	0
Registered Nurses:	374
Licensed Practical Nurses:	52

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

SAINT MARY'S
REGIONAL MEDICAL CENTER

October 19, 1988

Health Standards and
Quality Bureau, HCFA
Attention: Sandra Kappert
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, Maryland 21207

Dear Mrs. Kappert:

Thank you for the opportunity to respond to the 1987 Medicare mortality information for Saint Mary's Regional Medical Center (formerly Saint Mary's Hospital). Since receiving the report dated September 21, Saint Mary's staff has had the opportunity to review the data.

The manager of Medical Records has validated that, with minor exceptions, the data is accurate. As evident in the report, Saint Mary's fell well within the predicted mortality ranges set for all diagnostic categories. Saint Mary's has implemented stringent credentialing criteria and close monitoring programs to assure that we maintain a high-quality medical staff. Prior to being granted the privilege of practicing at Saint Mary's, physicians must be approved by a minimum of four professional committees. Their appointment to our staff is followed by continuous peer review and quality assurance programs, which enable us to maintain our high standards of care.

Also contributing to Saint Mary's excellence is our active quality assurance program in which all mortalities are reviewed by appropriate medical staff on an ongoing basis to ensure the continued provision of high-quality care. Not only are all mortalities evaluated, but both past and present charts are randomly reviewed to determine appropriateness of care.

Based on your Medicare mortality report, we identified four categories for further review. Those four were: cancer, cerebrovascular accidents, gastrointestinal catastrophes and severe acute heart disease. Case managers reviewed all cases in these categories.

In reviewing the cancer category, the case manager found that the majority of patients treated were terminally ill patients with a pre-existing diagnosis of cancer.

Approximately 95% of the cases were in the final stages of the disease. Therefore, the 40% mortality rate would be expected.

In reviewing the gastrointestinal catastrophes category, it was found that 80% of the patients had chronic alcohol related diseases that had progressed quite far. At this advanced stage of the disease, mortality was the expected outcome.

Reviewing the cerebrovascular accidents and severe acute heart disease categories revealed that 42% of the mortalities in these categories were elderly tourists (70 to 80 years of age) with strong prior histories of stroke and/or hypertension. Their histories coupled with the excitement of the gaming environment, lack of sleep, and high altitude of Reno, further complicated their conditions. This large elderly tourist population significantly skewed the figures in these two categories.

Some changes are also necessary on the hospital characteristics gathered by the AHA. In 1986, Saint Mary's was licensed for 367 acute care beds and had approximately 400 active physicians on staff. Of those physicians, about 85% were board certified specialists. All remaining information is correct.

Again, thank you for the opportunity to present this response. The data with which we worked enabled us to confirm the success of our Quality Assurance program. If you have any further questions, please call Cheryl Harmon, manager of Medical Records at (702) 789-3031.

Best regards,

W. J. Van Ry
President and
Chief Executive Officer

Paul Dieringer, M.D.
Chief of Staff

WJVR/PD:cf

ST ROSE DE LIMA HOSPITAL

102 EAST LAKE MEAD DR
HENDERSON, NV 89015

Medicare Hospital Provider Number: 290012

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	524	12	8 - 14	486	12	8 - 14
Cancer	14	50	17 - 67	4	50	6 - 83
Cerebrovascular Accidents	20	10	15 - 46	21	14	12 - 45
Gastrointestinal Catastrophes	6	0	11 - 62	0	-	-
Infectious Disease	4	50	4 - 82	3	0	4 - 79
Metabolic/Electrolyte Disorders	5	20	2 - 76	6	33	2 - 76
Pulmonary Disease	59	25	9 - 34	38	32	13 - 44
Renal Failure	5	60	14 - 88	5	60	11 - 86
Severe Acute Heart Disease	18	50	20 - 64	20	30	23 - 63
Severe Chronic Heart Disease	32	22	9 - 39	28	21	9 - 41
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	31	6	0 - 73	26	4	0 - 91
Gynecologic Disease	8	0	0 -100	5	0	0 -100
Low-Risk Heart Disease	80	4	0 - 16	63	5	0 - 19
Musculoskeletal/Skin Conditions	47	2	0 - 39	64	0	0 - 10
Neuropsychiatric/Sensory Disease	3	33	0 -100	5	0	0 -100
Urologic Disease	26	0	0 - 64	21	5	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	74
Occupancy Rate (%):	38
Ownership/Control:	Church

STAFFING

Total Number of Physicians:	38
Percent of Physicians Who Are Board Certified Specialists:	74
Interns and Residents:	0
Registered Nurses:	41
Licensed Practical Nurses:	10

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

U.M.C. OF SOUTHERN NEVADA

1800 WEST CHARLESTON BLVD
LAS VEGAS, NV 89102

Medicare Hospital Provider Number: 290007

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,227	15	9 - 14	2,117	17	10 - 15
Cancer	105	36	26 - 48	125	44	24 - 46
Cerebrovascular Accidents	65	25	13 - 36	73	27	14 - 36
Gastrointestinal Catastrophes	25	36	15 - 55	22	45	15 - 58
Infectious Disease	15	47	9 - 59	19	53	16 - 61
Metabolic/Electrolyte Disorders	54	41	15 - 46	55	29	11 - 40
Pulmonary Disease	106	25	15 - 35	112	30	13 - 33
Renal Failure	21	33	12 - 65	17	41	11 - 69
Severe Acute Heart Disease	124	30	24 - 43	110	48	29 - 50
Severe Chronic Heart Disease	114	32	12 - 31	112	33	13 - 32
Severe Trauma	6	17	8 - 71	7	43	3 - 72
Gastrointestinal Disease	119	8	1 - 16	96	7	0 - 18
Gynecologic Disease	19	0	0 -100	14	0	0 -100
Low-Risk Heart Disease	290	4	1 - 7	278	4	1 - 7
Musculoskeletal/Skin Conditions	147	1	0 - 6	143	3	0 - 15
Neuropsychiatric/Sensory Disease	91	3	0 - 37	52	4	0 - 25
Urologic Disease	134	3	0 - 16	94	1	0 - 11

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	436
Occupancy Rate (%):	68
Ownership/Control:	Local Government

STAFFING

Total Number of Physicians:	364
Percent of Physicians Who Are Board Certified Specialists:	68
Interns and Residents:	0
Registered Nurses:	402
Licensed Practical Nurses:	61

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	Yes
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

BOARD OF TRUSTEES

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Thalia M. Dondero
Bruce L. Woodbury

UMC
SOUTHERN NEVADA

MEDICARE PROVIDER #290007

October 13, 1988

Health Standards and Quality Bureau
HCFA
Attention: Mrs. Sandra Kappert
2-D-2 Meadows East Building
6325 Security Boulevard
Baltimore, MD 21207

Dear Mrs. Kappert:

Pursuant to the HCFA publication entitled, "Medicare Hospital Mortality Information (1987)", I have reviewed the hospital specific information and am providing the following information for publication with our respective statistics. Of the sixteen diagnostic categories represented, the only diagnostic category that exceeded the identified range for predicted mortality was Severe Chronic Heart Disease, by one percent. One hundred percent of the Severe Chronic Heart Disease patients' medical records were reviewed, and the following information was gleened from those medical records.

Standards of care, based on approved medical staff criteria, were 100% in compliance.

Twenty-two percent of the patients died post discharge. Documentation was present indicating that home health or extended care facility arrangements were completed. The hospital fulfilled its patient care and discharge planning obligations.

The mean age of these patients was 74 years. Medical record documentation reflected comorbid conditions existed in one hundred percent of the patients. Complications requiring therapeutic intervention were evident in ninety seven percent of the patients. Thirty-six percent of the patients had no family identified, in addition to fourteen percent of the patients that were identified as visitors to Clark County.

One additional factor affecting patient outcome was that ninety-seven percent of these patients, per medical record documentation, had been treated by a physician for Chronic Heart Disease in excess of eighteen months.

It is our professional opinion that all of the patients admitted with Severe Chronic Heart Disease received a high quality of medical care, based on approved standards of care.

The Hospital Administration and members of the Quality Assurance Committee have expressed a concern with the inconsistencies in statistical reporting for calendar year 1986 and the hospital characteristics. The numbers identified on the 1987 report for 1986 are not the same numbers that were reported to the Hospital Administation in 1986. It is imperative that the statistics presented from HCFA be correct and meaningful, as the information is made public.

Thank you for providing the hospital an opportunity to comment on our Medicare mortality statistics.

If you have any questions, feel free to contact me at (702) 383-2203.

Sincerely,

Jacqueline Taylor

Jacqueline Taylor
Senior Associate Administrator
Professional Services

/cd

VALLEY HOSPITAL MEDICAL CENTER

620 SHADOW LANE
LAS VEGAS, NV 89106

Medicare Hospital Provider Number: 290021

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,596	14	9 - 13	2,431	14	9 - 13
Cancer	85	42	24 - 49	67	43	24 - 51
Cerebrovascular Accidents	89	34	15 - 36	90	37	15 - 36
Gastrointestinal Catastrophes	26	50	13 - 54	29	34	13 - 51
Infectious Disease	31	42	18 - 55	18	39	19 - 64
Metabolic/Electrolyte Disorders	24	29	9 - 49	19	42	6 - 53
Pulmonary Disease	189	26	16 - 32	176	31	18 - 35
Renal Failure	19	47	20 - 75	23	26	17 - 69
Severe Acute Heart Disease	118	37	25 - 45	120	31	26 - 45
Severe Chronic Heart Disease	125	27	15 - 32	99	33	13 - 33
Severe Trauma	3	100	3 - 79	5	60	4 - 78
Gastrointestinal Disease	154	3	0 - 9	153	5	0 - 11
Gynecologic Disease	21	5	0 -100	19	0	0 -100
Low-Risk Heart Disease	415	4	1 - 6	400	5	1 - 6
Musculoskeletal/Skin Conditions	143	5	0 - 14	163	2	0 - 10
Neuropsychiatric/Sensory Disease	150	5	0 - 15	159	1	1 - 6
Urologic Disease	148	2	0 - 12	117	2	0 - 37

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	310
Occupancy Rate (%):	(not available)
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	(not available)
Burn Unit:	(not available)
Medical/Surgical Intensive Care:	(not available)
Cardiac Intensive Care:	(not available)
Organ Transplant Service:	(not available)
Hospice Care:	(not available)

WASHOE MEDICAL CENTER

77 PRINGLE WAY
RENO , NV 89502

Medicare Hospital Provider Number: 290001

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	2,809	14	10 - 14	3,020	14	10 - 15
Cancer	125	46	34 - 57	148	46	33 - 54
Cerebrovascular Accidents	92	34	16 - 36	104	34	17 - 37
Gastrointestinal Catastrophes	29	45	14 - 53	30	40	19 - 56
Infectious Disease	13	23	13 - 60	20	45	17 - 60
Metabolic/Electrolyte Disorders	41	37	11 - 45	41	22	8 - 39
Pulmonary Disease	101	31	15 - 36	115	26	17 - 37
Renal Failure	24	33	10 - 62	30	13	10 - 59
Severe Acute Heart Disease	181	26	26 - 43	184	39	28 - 45
Severe Chronic Heart Disease	92	23	14 - 32	100	22	15 - 33
Severe Trauma	11	18	5 - 57	8	25	4 - 67
Gastrointestinal Disease	156	8	1 - 13	179	4	1 - 9
Gynecologic Disease	21	0	0 -100	18	0	0 -100
Low-Risk Heart Disease	384	7	2 - 7	458	5	2 - 7
Musculoskeletal/Skin Conditions	227	2	1 - 6	215	2	1 - 7
Neuropsychiatric/Sensory Disease	139	4	0 - 12	131	3	1 - 10
Urologic Disease	143	1	0 - 9	157	1	0 - 9

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	512
Occupancy Rate (%):	55
Ownership/Control:	Private, Non-profit

STAFFING

Total Number of Physicians:	409
Percent of Physicians Who Are Board Certified Specialists:	66
Interns and Residents:	0
Registered Nurses:	424
Licensed Practical Nurses:	62

SPECIALTY SERVICES

Shock/Trauma Unit:	Yes
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	Yes
Organ Transplant Service:	No
Hospice Care:	No

WILLIAM BEE RIRIE HOSPITAL

P O BOX 435
EAST ELY, NV 89315

Medicare Hospital Provider Number: 290014

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	150	17	6 - 19	125	11	6 - 18
Cancer	0	-	-	5	60	13 - 84
Cerebrovascular Accidents	3	67	1 - 88	0	-	-
Gastrointestinal Catastrophes	2	50	2 - 92	3	0	3 - 79
Infectious Disease	2	0	3 - 88	0	-	-
Metabolic/Electrolyte Disorders	3	33	1 - 88	4	25	0 - 97
Pulmonary Disease	11	27	7 - 59	8	13	4 - 59
Renal Failure	3	100	16 - 91	0	-	-
Severe Acute Heart Disease	6	83	13 - 74	9	44	12 - 70
Severe Chronic Heart Disease	4	50	2 - 83	3	0	3 - 79
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	12	0	0 - 65	6	0	0 -100
Gynecologic Disease	1	0	0 -100	1	0	0 -100
Low-Risk Heart Disease	13	0	0 - 67	12	0	0 - 92
Musculoskeletal/Skin Conditions	13	0	0 - 99	9	11	0 -100
Neuropsychiatric/Sensory Disease	9	22	0 - 97	5	0	0 -100
Urologic Disease	11	9	0 -100	4	0	0 -100

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	40
Occupancy Rate (%):	30
Ownership/Control:	District/Authority

STAFFING

Total Number of Physicians:	6
Percent of Physicians Who Are Board Certified Specialists:	67
Interns and Residents:	0
Registered Nurses:	8
Licensed Practical Nurses:	7

SPECIALTY SERVICES

Shock/Trauma Unit:	No
Burn Unit:	No
Medical/Surgical Intensive Care:	Yes
Cardiac Intensive Care:	No
Organ Transplant Service:	No
Hospice Care:	No

WOMENS HOSPITAL

2025 EAST SAHARA AVENUE
LAS VEGAS, NV 89104

Medicare Hospital Provider Number: 290018

Diagnostic Category	Calender Year 1987			Calender Year 1986		
	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)	Cases	Actual Mortality Rate (%)	Range For Predicted Mortality (%)
All Cases	19	0	0 -100	21	0	0 - 67
Cancer	0	-	-	0	-	-
Cerebrovascular Accidents	0	-	-	0	-	-
Gastrointestinal Catastrophes	0	-	-	0	-	-
Infectious Disease	0	-	-	0	-	-
Metabolic/Electrolyte Disorders	0	-	-	0	-	-
Pulmonary Disease	0	-	-	1	0	0 - 99
Renal Failure	0	-	-	0	-	-
Severe Acute Heart Disease	0	-	-	0	-	-
Severe Chronic Heart Disease	0	-	-	0	-	-
Severe Trauma	0	-	-	0	-	-
Gastrointestinal Disease	0	-	-	1	0	0 -100
Gynecologic Disease	7	0	0 -100	10	0	0 -100
Low-Risk Heart Disease	1	0	0 -100	0	-	-
Musculoskeletal/Skin Conditions	5	0	0 -100	4	0	0 -100
Neuropsychiatric/Sensory Disease	0	-	-	0	-	-
Urologic Disease	0	-	-	0	-	-

HOSPITAL CHARACTERISTICS

SURVEY AND YEAR: AHA 1987

Total Beds (#):	61
Occupancy Rate (%):	(not available)
Ownership/Control:	Private, For Profit

STAFFING

Total Number of Physicians:	(not available)
Percent of Physicians Who Are Board Certified Specialists:	(not available)
Interns and Residents:	(not available)
Registered Nurses:	(not available)
Licensed Practical Nurses:	(not available)

SPECIALTY SERVICES

Shock/Trauma Unit:	(not available)
Burn Unit:	(not available)
Medical/Surgical Intensive Care:	(not available)
Cardiac Intensive Care:	(not available)
Organ Transplant Service:	(not available)
Hospice Care:	(not available)

Technical Appendix

TECHNICAL APPENDIX

METHODOLOGY

The Data Base

The data that are analyzed in this report are drawn from the MEDPAR file, which is assembled and updated quarterly by the Bureau of Data Management and Strategy in HCFA. This file is constructed from information on hospitalizations submitted to HCFA by hospitals through fiscal intermediaries. Data obtained from the Social Security Administration also contribute to the file. The data include the age, sex and date of death of each Medicare beneficiary. Because each beneficiary is assigned a unique health insurance claim number, it is possible to link hospitalizations longitudinally. Prior hospitalizations and readmissions can be found, as well as the date of death, whenever and wherever it occurred.

The hospitalizations in this file are segregated by the year of discharge. The data used in these analyses were drawn from the 1985, 1986 and 1987 discharges. The update cycles used for these years were 12/31/87, 6/10/88 and 6/10/88, respectively.

The process of data management consisted of selecting discharges from acute-care hospitals, calculating analytical variables that required data from prior hospitalizations and selecting the last discharge for each beneficiary for 1986 and 1987. The following rules were used to select discharges from acute-care hospitals:

1) Include only discharges from short-term (general and specialty) hospitals. These hospitals have a 0 in the third position of their "provider number."

2) Exclude discharges from psychiatric units, rehabilitation units, swing-beds and alcohol/drug units. These records have "provider codes" of S, T, U and V, respectively.

3) Exclude discharges from special cost centers. These are designated by a 9 in the fourth position of the "provider number."

4) Exclude discharges where the date of death precedes the date of admission, because these are obvious data errors.

Variables dependent on data from prior hospitalizations were calculated as follows:

1) For each beneficiary, sort the discharges in descending order by "discharge date" and "admission date" and stack the discharges for the current and prior years.

2) For the last discharge in the current year, determine whether the beneficiary at admission was transfered from another hospital. Operationally, the "discharge destination" for the prior discharge must be coded as a discharge to a short-term hospital, and the "discharge date" for the prior discharge must be no more than one day prior to the "admission date" for the last discharge.

3) For each discharge, use the principal diagnosis (the first "diagnostic code") to determine the diagnostic category as defined in Table 2 of the Introduction. Diagnoses that are not listed in this table are placed in a residual category of intermediate risk.

4) For the last discharge of the current year, count the number of admissions by diagnostic category that occurred within the 182 days prior to the admission date for this discharge.

Subsequently, the last discharges for 1986 and 1987 were selected and segregated by diagnostic categories into separate files for analysis. Only hospitals that had discharges in 1987 were considered for publication. Canadian and emergency hospitals were excluded. Six other hospitals were excluded because they terminated operations prior to 1987 or because their "provider number" was invalid.

Mortality Rates

In this project, the definition of mortality used to calculate mortality rates was death within 30 days of admission. The choice of a fixed period of 30 days after admission avoids biases that might occur if in-hospital deaths only were counted. Sufficient followup is available to permit complete estimation of mortality rates based upon this choice. Choosing a specific discharge avoids multiple counts of the same death. The last discharge for the year is biased to higher short-term risk.

Diagnostic Categories

Lists of the ICD-9-CM codes included in each diagnostic category are found in Table 2 of the Introduction to this report. The lists were constructed to represent diagnostic categories that are medically coherent and rather homogeneous with respect to risk of death.

Grouping was performed by combining clinically related diagnostic clusters when associated mortality rates were similar to one another. For each primary diagnosis, these rates were calculated from the 5% random sample of Medicare discharges for 1985 and 1986. For instance, Klebsiella pneumonia (482.0, 1385 patients, observed mortality = 24.3%) and Pseudomonas pneumonia (482.1, 1416 patients, observed mortality = 25.2%) were combined in the Pulmonary Disease category, as were subarachnoid hemorrhage (430, 525 patients, observed mortality = 47.8%) and intracerebral hemorrhage (431, 2883 patients, observed mortality = 42.9%), in the Cerebrovascular Accidents category.

These aggregations are generally analogous to the categories used in the 1987 analysis, but are more risk-homogeneous. In some cases, risk categories were expanded to incorporate a broader range of related conditions associated with similar risks of subsequent mortality, such as expanding ophthalmology to include psychiatric and other sensory system disorders or expanding low risk orthopedic conditions to include low risk dermatologic and muscular disorders.

In other instances, conditions were transferred to new categories based on empirical evidence that associated mortality rates were higher or lower than previously anticipated. For example, cancer of the salivary gland, gums, mouth, and oropharynx (142-146, observed mortality = 8.8%) was moved from high risk cancer to the intermediate risk category (average mortality = 8.5%), paroxysmal ventricular tachycardia (427.1, observed mortality 8.9%) was moved from the severe acute heart disease to the intermediate risk category, acute and chronic gastric ulcers with perforation, with and without hemorrhage (531.1, 531.2, 531.5, 531.6, observed mortality = 21.8%) was moved from low risk GI disease to GI catastrophe, pneumonia due to H. influenzae (482.2, observed mortality = 8.6%) was moved from high risk pulmonary to the intermediate risk category, fracture of the femur (820, 821, observed mortality = 6.1%) was moved from high risk trauma to the intermediate risk category, and chronic glomerulonephritis and other nephritis and nephropathy (582, 583, observed mortality 2.2%) was moved from high risk renal to low risk urologic disease. The new categories were reviewed for clinical and coding consistency and face validity, and final adjustments were made. Final adjustments included combining myocardial infarctions in a single risk group since coding variations among institutions made separation into different categories problematic, and removing italicized ICD-9-CM diagnoses from named risk groups since they are not valid principal diagnoses.

Demographic Variables

As in 1987, age and sex variables were used to characterize each patient. The sex variable is an indicator variable, as shown in Table 1. The patient's age was expressed in the 1987 Mortality Release by indicator variables in six categories, 65, 65-69, 70-74, 75-79, 80-84, and 85. For the 1988 Mortality Release, the age relative to 65 years and the square of this variable, as shown in Table 1, replaced the categorical age variables.

Comorbidity Variables

As in 1987, the secondary diagnoses (0-4 in number, "diagnostic codes" 2-5) were used to construct variables indicating the presence of comorbidities. The eight comorbidity indicator variables used in the analyses are: diabetes (DI), chronic pulmonary disease (OP), cancer (CA), chronic liver disease (LV), chronic renal disease (RN), cerebral vascular degeneration or chronic psychosis (CE), hypertensive disease (HY) and chronic cardiovascular disease (CV). The ICD-9-CM codes defining these variables are the same as were used in 1987 and are listed in Table 3 of the Introduction.

Prior History Variables

In the 1987 Mortality Release, the number of prior admissions was not based on a fixed interval of time prior to the admission date for the last discharge of the year, but included only prior admissions with discharges in the same calendar year (1986). Also all admissions were counted without any distinction among the risks associated with various prior admissions. In the 1988 Mortality Release, prior admissions are counted for a fixed interval of six months prior to the admission date for the last discharge of the year, and separate counts of prior admissions are made for three risk levels. They are admissions with high, low and intermediate risk. In Table 2 of the Introduction, diagnostic categories are defined as high risk or low risk. The intermediate risk category is composed of ICD-9-CM codes not listed in that table. Indicator variables are defined for the high risk category, as shown in Table 1, as PH1 if there was one prior high risk admission, PH2 if there were two and PH3M if there were three or more. Similar variables are defined for low risk (PL1, PL2, PL3M) and intermediate risk (PU1, PU2, PU3M) admissions. The indicator variable TRIN records whether or not the patient was transfered into the hospital from another acute-care hospital.

Analytic Techniques

The principal analytic tool was logistic regression (see, for example, Cox (1970)). Because the diagnostic categories are mutually exclusive, the analyses to ascertain the influence of patient characteristics (demographics, comorbidities and prior histories) were carried out separately for each category.

The probability π that a patient dies within 30 days of admission depends on the patient's characteristics x_i. Table 1 lists the covariates used in the logistic model for this year's analysis. Generally the same variables were used across all diagnostic categories. There are some exceptions. For example, the variable sex is not included as a covariate in the analyses for the diagnostic category gynecologic disease. In all other cases, the model is the same, with the occasional omission of one or more variables because of estimation difficulties (See Tables 2 and 3).

The dependence of π on these variables is specified by a logistic model:

$$\log \ (\pi/(1-\pi)) = \Sigma_i \beta_i x_i .$$

The regression coefficients β_i are estimated by the method of maximum likelihood. It is possible then to estimate the probability of dying for a patient from his or her characteristics x_i. By averaging over all the patients for whom treatment in a given hospital is being evaluated, the estimated mortality rate for that hospital is found. This analysis is carried out for each individual diagnostic category (the 16 explicitly defined categories as well as the residual category). The coefficients for each diagnostic category are shown in Table 2 for the 1987 data and in Table 3 for the 1986 data. Blank spaces in these tables mean that the corresponding variables were not used in the model. This is the same as fixing the parameter estimates for the unused variables at zero. Calculations were performed using the SAS procedure LOGIST as described by the SAS Institute (1986).

In addition to the estimates of regression coefficients for the logistic regression model, Tables 2 and 3 also display the model chi-square, based on the likelihood ratio, the number of cases and the number of deaths, for each of the diagnostic categories. The model chi-square has 22 degrees of freedom in most cases. The exceptions occur when one or more variables are removed from the model. In these cases, the degrees of freedom are reduced by one for each variable removed from the model. In all cases, the model chi-square is highly significant ($P < 0.001$). Note that the coefficients from 1987 and 1986 data are generally similar, as can be seen clearly in Table 4. The major differences occur in low risk categories or when there are only a few cases associated with the variable. In these situations, the parameter estimates are less stable. For example, there are relatively few cases associated with the variables for three or more prior admissions within six months. The regression coefficients in Tables 2 and 3 were used to estimate the probability of death within 30 days of the last admission in 1987 or 1986 for a 1987 "average case" for each of the diagnostic categories, as shown in Table 4. The "average case" is a hypothetical "patient" whose characteristics correspond to average values of each variable within a diagnostic category. The mortality rate for this 1987 "average case" using the 1986 and 1987 coefficients is displayed in Table 4 along with the average observed mortality rate. Note the similarity of the data for 1986 and 1987. Note also that the average observed and the average predicted mortality rates must be equal, but that the predicted mortality rate for the "average case" differs from them somewhat because of the inverse logit transformation that is needed to convert the sum of the products of the average values of the variables and the regression coefficients to a probability of dying. Since there is no way to know that a given admission will result in the last discharge of the year, these equations generally should not be used for predicting the outcome for individual cases.

The second quantity required of the analyses was an estimate of the uncertainty in the mortality rate expressed as a range of predicted rates encompassing a specified proportion (95%) of the probable values. For this it is necessary to compute the variance of the probability of death at a given hospital.

There are two components of variance included in our calculation of the range of mortality for a hospital. The first is the sampling variance, which is estimated by:

$$SV_j = B_j(1-B_j) / N_j,$$

where

$$B_j = (N_j p_j + 1) / (N_j + 2),$$

and p_j is the observed proportion of persons who had died among the N_j persons at risk, within a specified diagnostic category (or overall). B_j is a Bayesian estimate of the probability of dying.

The second component arises from the systematic differences among hospitals in the identified factors included in the logistic model. This contribution to the variance is estimated by:

$$IHV_j = (1-(1/N_j))\ V$$

where V, the inter-hospital variance, is

$$V = \Sigma_j\ (P_j - \bar{P})^2\ (N_j / N_t).$$

P_j is the predicted mortality rate and N_j is the number of cases at risk at hospital j. $N_t = \Sigma_j\ N_j$ is the total number of cases at risk and $\bar{P} = (\Sigma_j\ N_j\ P_j\ ) / N_t$ is the average mortality rate, in the category under consideration. To see how this formula arises, consider the basic identity (Kendall, Stuart and Ord, 1983, p.212):

$$Var(x) = E_\theta\ \{Var_{x|\theta}(x)\} + Var_\theta\ \{E_{x|\theta}(x)\}.$$

When this formula is applied to a binomial random variable x, the result is

$$Var(x) = n\ E_\theta\ \{\theta\}(1-E_\theta\{\theta\}) + n(n-1)\ Var_\theta\{\theta\}$$

as given by Mosimann (1962, equation 36). From this it follows that

$$\mathrm{Var}(x/n) = \mathrm{Var}(x) / n^2 = (E_\theta\{\theta\}(1-E_\theta\{\theta\})) / n + (1-(1/n))\,\mathrm{Var}\{\theta\}$$

where $V\{\theta\} = V$, the constant inter-hospital variance. Values of V for each diagnostic category are in Table 4.

The ranges of predicted mortality rates given in this publication encompass 95% of the probable values on a logit scale, which ensures that the range neither goes below zero nor above 100%. On the logit scale, the range of predicted values P is given by:

$$R_j = \log(P_j/(1-P_j)) \pm 1.96(\sqrt{SV_j + IHV_j}) / (P_j(1-P_j)).$$

Retransformed to the probability scale, the upper end of the range is:

$$\exp(R_+) / (1 + \exp(R_+))$$

and the lower end is:

$$\exp(R_-) / (1 + \exp(R_-))$$

where R_+ is the value of R taken with the + sign and R_- is the value of R taken with the - sign.

The tabulation of the numbers of cases at risk (i. e., the number of patients whose last discharge in 1987 was from the given hospital), of the percentage of these persons who died within 30 days of the date of admission for that hospitalization, and of the range of predicted mortality rates encompassing 95% of the probable values on the logit scale forms the core of the present publication. A similar display is also included for the 1986 data.

An implication that bears importantly on year-to-year stability of rankings is that there remain important sources of variability in outcomes associated with variations in patient characteristics (such as severity of illness) and other factors that have not been taken into account in the models used in the present analyses.

References

David R. Cox (1970) The Analysis of Binary Data, London: Chapman and Hall.

Maurice Kendall, Alan Stuart and J. Keith Ord (1983) The Advanced Theory of Statistics, Vol. 3, 4th Ed., New York: Macmillan.

James E. Mosimann (1962) "On the compound multinomial distribution, the multivariate β-distribution, and correlations among proportions," Biometrika, 49, 65-82.

SAS Institute Inc. (1986) SUGI Supplemental Library User's Guide, Version 5 Edition, Cary, NC: SAS Institute, Inc.

TABLE 1

Covariates used in the logistic models for the 1988 Hospital Mortality Release. Generally the same variables are used for all diagnostic categories. The two-letter codes for comorbidities are defined in terms of ICD-9-CM codes in Table 3 of the Introduction to this report.

Intercept Constant added into the logistic model in all cases.

Demographics

RAG	Age of patient in years divided by 65.
RAGSQ	RAG squared.
SEX	An indicator variable: Male 0 and Female 1.

Comorbidities (Indicator variables)

DI	1 if patient has diabetes, 0 if not.
OP	1 if chronic pulmonary disease, 0 if not.
CA	1 if cancer, 0 if not.
LV	1 if chronic liver disease, 0 if not.
RN	1 if chronic renal disease, 0 if not.
CE	1 if cerebrovascular degeneration or chronic psychosis, 0 if not.
HY	1 if hypertensive disease, 0 if not.
CV	1 if chronic cardiovascular disease, 0 if not.

Prior Histories (Indicator variables)

PH1	1 if patient has had 1 recent high-risk admission, 0 if not.
PH2	1 if patient has had 2 recent high-risk admissions, 0 if not.
PH3M	1 if patient has had 3 recent high-risk admissions, 0 if not.
PL1	1 if patient has had 1 recent low-risk admission, 0 if not.
PL2	1 if patient has had 2 recent low-risk admissions, 0 if not.
PL3M	1 if patient has had 3 recent low-risk admissions, 0 if not.
PU1	1 if patient has had 1 recent medium-risk admission, 0 if not.
PU2	1 if patient has had 2 recent medium-risk admissions, 0 if not.
PU3M	1 if patient has had 3 recent medium-risk admissions, 0 if not.
TRIN	1 if patient was transfered into the hospital, 0 if not.

Recent means within six months (182 days) before the admission date on the last discharge.

Table 2

1987

Parameter Estimates

Conditions:

CA - Cancer
CE - Cerebrovascular accidents
EY - Neuropsychiatric and sensory disease
GC - Gastrintestinal catastrophes
GI - Gastrointestinal disease
GU - Urologic disease
GY - Gynecologic disease
HL - Low-risk heart disease
HM - Severe chronic heart disease
HS - Severe acute heart disease
ME - Metabolic/electrolyte disturbances
OP - Muskuloskeletal and cutaneous conditions
PN - Pulmonary disease
RN - Renal failure
SE - Infectious disease
TR - Severe trauma
UN - All other conditions

Table 2.1

PARAMETER ESTIMATES(EST) AND STANDARD ERRORS(SE) FROM THE 1988 MODEL
APPLIED TO THE LAST DISCHARGES FOR 1987

CONDITIONS	CA		CE		EY		GC		GI		GU	
VARIABLES	EST	SE	EST	SE	EST	SE	EST	SE	EST	SE	EST	SE
INTERCEPT	-0.9591	0.1846	1.1997	0.2163	-5.2813	0.2800	-2.3087	0.2017	-3.5635	0.2663	-4.7226	0.4824
RAG	-1.6335	0.3285	-6.6151	0.3659	-1.5611	0.5229	-0.4696	0.3734	-5.5355	0.4572	-5.5282	0.8185
RAGSQ	1.3503	0.1465	3.7120	0.1544	2.2297	0.2447	1.2330	0.1746	4.2574	0.1972	4.4686	0.3499
SEX	-0.2402	0.0094	-0.0476	0.0099	-0.5750	0.0287	-0.1175	0.0199	-0.1243	0.0185	0.5935	0.0350
DI	-0.1024	0.0258	0.1020	0.0165	0.1759	0.0587	-0.1638	0.0415	0.2683	0.0400	0.4540	0.0636
OP	-0.0561	0.0141	0.1279	0.0185	0.3559	0.0436	0.0051	0.0359	0.2458	0.0285	0.1487	0.0535
CA	0.5768	0.0093	0.8097	0.0252	1.9331	0.0441	1.0668	0.0340	1.6400	0.0301	1.4296	0.0452
LV	1.3567	0.0417	0.9674	0.0741	0.8902	0.1032	0.9094	0.0259	1.3731	0.0523	1.4221	0.1900
RN	1.0472	0.0364	0.8796	0.0314	1.6159	0.0678	0.6804	0.0411	1.4903	0.0431	1.4730	0.0594
CE	-0.0632	0.0394	-0.6277	0.0291	0.2072	0.0601	-0.5066	0.0825	0.0970	0.0636	0.5856	0.0843
HY	-0.3680	0.0492	-0.0778	0.0226	-0.0419	0.1010	-0.3043	0.0760	-0.1481	0.0642	-0.0122	0.1146
CV	0.3520	0.0118	0.3532	0.0097	0.6803	0.0304	0.5708	0.0221	0.7706	0.0186	0.9333	0.0323
PH1	0.9049	0.0111	0.4668	0.0149	1.0171	0.0409	0.4431	0.0263	1.0073	0.0263	1.1523	0.0425
PH2	1.3110	0.0199	0.8399	0.0344	1.6964	0.0753	0.5912	0.0461	1.4578	0.0538	1.5987	0.0906
PH3M	1.5586	0.0339	1.2198	0.0752	1.9332	0.1458	0.5752	0.0666	1.8720	0.1031		
PU1	0.4216	0.0129	0.3815	0.0163	0.5417	0.0398	0.2922	0.0263	0.5258	0.0251	0.6359	0.0416
PU2	0.6721	0.0242	0.6588	0.0401	0.9497	0.0767	0.4900	0.0517	0.9993	0.0487	1.0869	0.0809
PU3M	0.8003	0.0291	0.7082	0.0782	1.4732	0.1082	0.5197	0.0815	1.0673	0.0858	1.5890	0.1328
TRIN	-0.2626	0.0293	-0.0471	0.0357	0.5169	0.1053	0.3129	0.0627	0.6705	0.0692	0.6464	0.1219
PL1	0.1573	0.0162	0.1208	0.0159	0.1455	0.0378	0.1427	0.0301	0.2183	0.0250	0.1653	0.0433
PL2	0.1772	0.0437	0.1758	0.0411	0.1414	0.0801	0.1743	0.0731	0.3797	0.0533	0.4906	0.0895
PL3M	0.1269	0.1044	0.3631	0.0888	0.0705	0.1537	0.1452	0.1591	0.2971	0.1094	0.8340	0.1643
TOTAL NUM.	216,565		240,896		245,185		52,907		451,765		277,784	
DEATHS	89,692		63,407		5,633		18,329		13,776		4,634	
MODEL CHI-SQ.	23,809		11,842		7,524		5,215		16,232		7,689	

Table 2.2

PARAMETER ESTIMATES(EST) AND STANDARD ERRORS(SE) FROM THE 1988 MODEL
APPLIED TO THE LAST DISCHARGES FOR 1987

CONDITIONS	GY		HL		HM		HS		ME		OP	
VARIABLES	EST	SE	EST	SE	EST	SE	EST	SE	EST SE	EST	SE	
INTERCEPT	-9.1786	0.3010	-3.1645	0.2327	-1.9582	0.1666	-0.3864	0.1743	-3.2048	0.2537	-3.3135	0.2154
RAG			-4.6780	0.4036	-1.7762	0.2847	-3.4967	0.3051	0.2668	0.4302	-5.8135	0.3778
RAGSQ	2.3124	0.2106	3.3811	0.1750	1.7348	0.1215	2.6778	0.1335	0.8351	0.1827	4.2440	0.1665
SEX			-0.2982	0.0129	-0.2375	0.0092	-0.0383	0.0088	-0.4303	0.0160	-0.4685	0.0192
DI	0.9843	0.2244	0.2989	0.0241	-0.0471	0.0155	0.1744	0.0155	-0.0804	0.0329	0.3664	0.0349
OP	0.1323	0.2781	0.2005	0.0200	0.0032	0.0117	-0.1526	0.0142	0.0243	0.0273	0.4635	0.0297
CA	2.1844	0.1861	1.5089	0.0244	0.8028	0.0211	0.5563	0.0256	1.6174	0.0200	1.8846	0.0285
LV	1.8871	0.5508	1.2272	0.0787	0.7108	0.0435	1.0323	0.0751	0.8660	0.0693	1.5729	0.0798
RN	2.2304	0.3106	1.1843	0.0297	0.7261	0.0159	0.8167	0.0253	0.6416	0.0304	1.6414	0.0448
CE	0.3470	0.4731	0.0348	0.0444	-0.0814	0.0318	-0.5037	0.0376	-0.2641	0.0316	0.2949	0.0490
HY	0.3073	0.3791	-0.1699	0.0362	-0.3986	0.0280	-0.2861	0.0250	-0.2003	0.0612	0.0462	0.0641
CV	1.3402	0.1349	0.5437	0.0133	0.0804	0.0092	0.2520	0.0093	0.6250	0.0174	0.9847	0.0193
PH1	1.6812	0.1924	0.8796	0.0162	0.6334	0.0106	0.4255	0.0132	0.5445	0.0190	1.0584	0.0288
PH2	2.9031	0.4044	1.4401	0.0306	0.9506	0.0165	0.8011	0.0285	0.7757	0.0346	1.4467	0.0623
PH3M			2.0347	0.0535	1.1726	0.0231	1.1723	0.0571	1.0184	0.0616	2.1872	0.1133
PU1	0.9758	0.1835	0.4561	0.0188	0.3210	0.0128	0.3565	0.0153	0.3166	0.0200	0.4935	0.0279
PU2	1.1076	0.4287	0.8606	0.0392	0.5318	0.0270	0.6332	0.0372	0.4251	0.0382	0.9696	0.0545
PU3M	1.5589	0.6383	1.1950	0.0658	0.6545	0.0489	0.9770	0.0669	0.6245	0.0574	1.4334	0.0845
TRIN	1.3584	0.8502	0.6728	0.0247	0.4610	0.0362	-0.4480	0.0235	0.3256	0.1310	0.8660	0.0862
PL1	-0.3050	0.2295	0.1905	0.0159	0.1086	0.0133	0.1103	0.0139	0.0448	0.0232	0.0407	0.0270
PL2	0.6264	0.4710	0.2546	0.0299	0.1217	0.0300	0.1501	0.0323	0.0580	0.0568	0.0861	0.0616
PL3M			0.4261	0.0480	0.2047	0.0572	0.3722	0.0619	-0.1159	0.1335	-0.0071	0.1383
TOTAL NUM.	61,870		818,849		311,444		246,665		105,282		585,696	
DEATHS	273		27,786		70,762		94,172		26,485		13,186	
MODEL CHI-SQ	667		21,104		19,097		14,457		14,966		18,616	

Table 2.3

PARAMETER ESTIMATES(EST) AND STANDARD ERRORS(SE) FROM THE 1988 MODEL
APPLIED TO THE LAST DISCHARGES FOR 1987

CONDITIONS	PN		RN		SE		TR		UN	
VARIABLES	EST	SE	EST	SE	EST	SE	EST	SE	EST	SE
INTERCEPT	-2.6009	0.1260	-4.7164	0.2568	-2.2654	0.1841	-1.4983	0.4342	-3.5263	0.0652
RAG	-1.1518	0.2161	2.4880	0.4744	-0.2282	0.3274	-1.3583	0.7978	-2.4574	0.1146
RAGSQ	1.7081	0.0927	0.5723	0.2186	0.9669	0.1465	1.4598	0.3676	2.4350	0.0507
SEX	-0.3345	0.0086	-0.1322	0.0252	-0.1198	0.0162	-0.2443	0.0435	-0.2930	0.0052
DI	0.1040	0.0182	0.1180	0.0406	-0.0070	0.0271	-0.0629	0.1099	0.1689	0.0104
OP	-0.3019	0.0103	0.2304	0.0498	-0.0529	0.0308	-0.2491	0.0836	0.2396	0.0074
CA	1.0701	0.0137	0.9455	0.0430	0.7369	0.0237	0.8208	0.1094	1.1744	0.0070
LV	0.6490	0.0482	1.2631	0.1042	0.9764	0.0597	1.1583	0.2114	1.4285	0.0192
RN	0.8493	0.0215	-0.0693	0.0369	0.7499	0.0313	1.1097	0.1679	1.0659	0.0115
CE	0.0284	0.0167	-0.0107	0.0758	-0.3244	0.0425	-0.4878	0.1103	0.0186	0.0146
HY	-0.2986	0.0327	-0.3446	0.0479	-0.3185	0.0673	-0.1716	0.1790	-0.2222	0.0186
CV	0.3876	0.0086	0.6419	0.0259	0.5171	0.0175	0.5752	0.0469	0.6601	0.0053
PH1	0.6818	0.0105	0.3766	0.0300	0.5626	0.0199	0.1086	0.0694	0.9182	0.0069
PH2	0.9608	0.0192	0.6510	0.0520	0.7310	0.0368	0.3808	0.1633	1.3266	0.0137
PH3M	1.2271	0.0338	1.0370	0.0839	0.9597	0.0658	0.9237	0.3318	1.6233	0.0251
PU1	0.5299	0.0114	0.3242	0.0317	0.4128	0.0199	0.2128	0.0718	0.4829	0.0064
PU2	0.8180	0.0227	0.4157	0.0577	0.6202	0.0363	0.4006	0.1684	0.7516	0.0109
PU3M	1.0552	0.0378	0.7940	0.0869	0.7960	0.0558	0.8103	0.3126	0.7356	0.0146
TRIN	0.1327	0.0419	0.1808	0.0533	0.4457	0.0721	-0.1722	0.1057	0.4225	0.0173
PL1	0.2341	0.0135	0.1925	0.0355	0.1490	0.0235	-0.0263	0.0720	0.1152	0.0078
PL2	0.2659	0.0337	0.3193	0.0797	0.2329	0.0566	-0.2338	0.1915	0.1074	0.0187
PL3M	0.2878	0.0754	0.4619	0.1810	0.2501	0.1322	0.2520	0.3722	0.0855	0.0407
TOTAL NUM.	339,986		33,325		77,856		11,777		2,200,419	
DEATHS	87,977		12,531		27,664		3,306		187,048	
MODEL CHI-SQ	38,547		6,125		6,964		621		144,234	

Table 3

1986

Parameter Estimates

Conditions:

CA - Cancer
CE - Cerebrovascular accidents
EY - Neuropsychiatric and sensory disease
GC - Gastrintestinal catastrophes
GI - Gastrointestinal disease
GU - Urologic disease
GY - Gynecologic disease
HL - Low-risk heart disease
HM - Severe chronic heart disease
HS - Severe acute heart disease
ME - Metabolic/electrolyte disturbances
OP - Muskuloskeletal and cutaneous conditions
PN - Pulmonary disease
RN - Renal failure
SE - Infectious disease
TR - Severe trauma
UN - All other conditions

Table 3.1

PARAMETER ESTIMATES(EST) AND STANDARD ERRORS(SE) FROM THE 1988 MODEL
APPLIED TO THE LAST DISCHARGES FOR 1986

CONDITIONS	CA		CE		EY		GC		GI		GU	
VARIABLES	EST	SE	EST	SE	EST	SE	EST	SE	EST	SE	EST	SE
INTERCEPT	-0.6935	0.1711	1.2702	0.2119	-5.0334	0.2787	-2.4782	0.2041	-4.6046	0.2977	-4.9166	0.4960
RAG	-2.0718	0.3060	-6.6604	0.3596	-2.0634	0.5218	-0.1881	0.3780	-3.7139	0.5078	-5.3277	0.8391
RAGSQ	1.5499	0.1373	3.7428	0.1522	2.4025	0.2450	1.1097	0.1769	3.4668	0.2170	4.5152	0.3568
SEX	-0.2593	0.0092	-0.0565	0.0099	-0.6174	0.0289	-0.1210	0.0201	-0.0971	0.0185	0.4567	0.0341
DI	-0.0272	0.0262	0.0901	0.0168	0.1705	0.0602	-0.1277	0.0430	0.3501	0.0402	0.3537	0.0657
OP	-0.1000	0.0144	0.1143	0.0191	0.3318	0.0449	0.0242	0.0366	0.2072	0.0296	0.3862	0.0496
CA	0.5851	0.0092	0.8364	0.0256	1.8688	0.0467	1.0402	0.0349	1.5772	0.0309	1.3949	0.0443
LV	1.2564	0.0407	0.9586	0.0740	1.1024	0.0990	0.8965	0.0259	1.2942	0.0551	1.4362	0.1772
RN	1.0298	0.0361	0.9586	0.0318	1.5581	0.0702	0.6505	0.0412	1.6787	0.0420	1.4506	0.0577
CE	-0.0221	0.0400	-0.6970	0.0305	0.3764	0.0591	-0.4242	0.0824	0.0921	0.0657	0.4479	0.0916
HY	-0.3215	0.0467	-0.0427	0.0218	-0.1194	0.1018	-0.1737	0.0736	-0.1337	0.0618	-0.0633	0.1163
CV	0.3175	0.0118	0.3192	0.0097	0.7138	0.0305	0.5685	0.0226	0.7724	0.0188	0.8915	0.0318
PH1	0.8905	0.0108	0.4851	0.0147	1.1647	0.0401	0.5078	0.0264	1.0110	0.0263	1.0662	0.0423
PH2	1.3003	0.0186	0.8945	0.0343	1.5354	0.0800	0.5598	0.0463	1.4630	0.0545	1.6150	0.0845
PH3M	1.5546	0.0307	1.2319	0.0715	2.1298	0.1384	0.7163	0.0638	1.9491	0.0945	1.9744	0.1628
PU1	0.4014	0.0125	0.3670	0.0161	0.5563	0.0395	0.2703	0.0267	0.5007	0.0252	0.7208	0.0389
PU2	0.7303	0.0237	0.6878	0.0381	1.0727	0.0727	0.4299	0.0509	0.8482	0.0498	1.0602	0.0766
PU3M	0.7999	0.0287	0.9325	0.0753	1.3039	0.1118	0.4267	0.0799	1.2691	0.0786	1.5561	0.1256
TRIN	-0.2505	0.0292	-0.1440	0.0353	0.6729	0.1012	0.3272	0.0622	0.6357	0.0736	0.2013	0.1316
PL1	0.1639	0.0158	0.1246	0.0157	0.1131	0.0377	0.1974	0.0297	0.2120	0.0248	0.2379	0.0404
PL2	0.2254	0.0418	0.2646	0.0388	0.1614	0.0778	0.3439	0.0705	0.2968	0.0537	0.4307	0.0839
PL3M	0.1770	0.0989	0.2803	0.0871	-0.1251	0.1570	0.3168	0.1550	0.4594	0.0995	0.4725	0.1783
TOTAL NUM	222,229		238,401		270,607		52,534		461,326		271,619	
DEATHS	93,522		64,594		5,542		18,040		13,703		4,922	
MODEL CHISQ	25,026		12,188		7,273		5,175		16,023		8,032	

Table 3.2

PARAMETER ESTIMATES(EST) AND STANDARD ERRORS(SE) FROM THE 1988 MODEL
APPLIED TO THE LAST DISCHARGES FOR 1986

CONDITIONS	GY		HL		HM		HS		ME		OP	
VARIABLES	EST	SE	EST	SE	EST	SE	EST	SE	EST	SE	EST	SE
INTERCEPT	-6.0902	1.4498	-3.4160	0.2212	-1.6133	0.1692	-0.5198	0.1701	-2.5712	0.2549	-3.7309	0.2242
RAG	-5.5378	2.5669	-4.2268	0.3845	-2.4500	0.2892	-3.1937	0.2987	-1.1829	0.4326	-5.0932	0.3922
RAGSQ	4.7783	1.1535	3.1875	0.1673	2.0516	0.1233	2.5477	0.1310	1.5576	0.1840	3.9324	0.1723
SEX			-0.3070	0.0130	-0.2495	0.0092	-0.0478	0.0087	-0.4780	0.0163	-0.4855	0.0193
DI	0.1866	0.3101	0.2941	0.0250	-0.0197	0.0160	0.1450	0.0158	0.0318	0.0342	0.3539	0.0365
OP	0.5395	0.2405	0.1872	0.0207	0.0077	0.0120	-0.1629	0.0144	0.0252	0.0287	0.3840	0.0315
CA	2.2193	0.1759	1.4997	0.0255	0.8415	0.0212	0.6057	0.0259	1.6491	0.0208	1.9165	0.0288
LV	1.6894	0.6300	1.1551	0.0807	0.8547	0.0438	1.1809	0.0751	0.9253	0.0716	1.5156	0.0806
RN	2.6680	0.2904	1.2739	0.0302	0.7806	0.0164	0.8464	0.0253	0.6618	0.0312	1.6090	0.0468
CE	0.9116	0.3657	0.0700	0.0454	-0.1465	0.0332	-0.4865	0.0385	-0.2090	0.0328	0.2731	0.0516
HY	-0.5363	0.5140	-0.1274	0.0348	-0.3400	0.0270	-0.3097	0.0243	-0.2524	0.0613	0.0238	0.0638
CV	1.3407	0.1327	0.5839	0.0133	0.1184	0.0092	0.2506	0.0090	0.6640	0.0177	1.0189	0.0195
PH1	1.0216	0.2113	0.9189	0.0161	0.6290	0.0106	0.4733	0.0130	0.5411	0.0194	0.9992	0.0292
PH2	1.6429	0.5046	1.4469	0.0310	0.9750	0.0166	0.8402	0.0282	0.8648	0.0347	1.5330	0.0602
PH3M			1.9382	0.0537	1.2485	0.0234	1.2165	0.0565	0.9935	0.0616	2.0814	0.1047
PU1	1.1173	0.1706	0.4277	0.0188	0.3470	0.0128	0.3501	0.0151	0.3306	0.0202	0.5565	0.0273
PU2	2.1093	0.2979	0.8318	0.0382	0.5611	0.0267	0.6626	0.0353	0.5036	0.0384	0.9047	0.0549
PU3M	2.2081	0.6138	0.9628	0.0702	0.7711	0.0481	0.9840	0.0650	0.6713	0.0572	1.3180	0.0858
TRIN	0.9013	0.7009	0.7265	0.0258	0.5468	0.0377	-0.3246	0.0243	0.2211	0.1395	0.7031	0.0868
PL1	0.4276	0.1768	0.1796	0.0160	0.1214	0.0133	0.1137	0.0136	0.0428	0.0233	0.0564	0.0266
PL2	0.9956	0.3936	0.2855	0.0294	0.1428	0.0298	0.2299	0.0313	0.0182	0.0546	0.1999	0.0587
PL3M	0.2168	1.1080	0.4296	0.0471	0.1918	0.0573	0.2938	0.0630	-0.2231	0.1276	0.3776	0.1113
TOTAL NUM	60,709		806,069		306,819		252,802		106,268		598,973	
DEATHS	292		27,612		71,429		98,629		25,226		12,993	
MODEL CHISQ	742		21,313		20,525		15,388		15,173		18,431	

Table 3.3

PARAMETER ESTIMATES(EST) AND STANDARD ERRORS(SE) FROM THE 1988 MODEL
APPLIED TO THE LAST DISCHARGES FOR 1986

CONDITIONS	PN		RN		SE		TR		UN	
VARIABLES	EST	SE	EST	SE	EST	SE	EST	SE	EST	SE
INTERCEPT	-2.4297	0.1257	-5.3676	0.2513	-1.9628	0.1900	-1.2194	0.4088	-3.6987	0.0657
RAG	-1.6417	0.2157	4.0378	0.4657	-0.8787	0.3385	-1.6280	0.7616	-2.1326	0.1156
RAGSQ	1.9832	0.0927	-0.1729	0.2153	1.3268	0.1517	1.5136	0.3558	2.3068	0.0511
SEX	-0.3399	0.0087	-0.1521	0.0249	-0.1357	0.0166	-0.2379	0.0439	-0.3210	0.0051
DI	0.0955	0.0189	0.1173	0.0406	-0.0102	0.0289	0.1980	0.1100	0.1557	0.0107
OP	-0.3001	0.0106	0.1944	0.0515	-0.0513	0.0332	-0.3725	0.0878	0.2494	0.0076
CA	1.0634	0.0142	1.0241	0.0434	0.7422	0.0249	1.1083	0.1114	1.1908	0.0069
LV	0.8483	0.0480	1.5236	0.1083	0.9560	0.0634	1.1229	0.2031	1.4421	0.0190
RN	0.9741	0.0217	-0.0975	0.0366	0.8834	0.0323	1.1905	0.1593	1.0938	0.0116
CE	0.0463	0.0197	-0.1517	0.0812	-0.2689	0.0439	-0.9687	0.1333	0.0093	0.0150
HY	-0.3062	0.0315	-0.4059	0.0461	-0.3765	0.0692	-0.5217	0.1900	-0.2185	0.0183
CV	0.3822	0.0087	0.6109	0.0257	0.5128	0.0183	0.5865	0.0477	0.6784	0.0053
PH1	0.7077	0.0107	0.3839	0.0296	0.5894	0.0203	0.0373	0.0718	0.8865	0.0069
PH2	1.0172	0.0193	0.6771	0.0504	0.7663	0.0367	0.4404	0.1499	1.3351	0.0135
PH3M	1.2355	0.0334	0.8575	0.0795	1.0428	0.0657	0.7899	0.3126	1.6613	0.0244
PU1	0.5472	0.0115	0.3206	0.0310	0.3753	0.0205	0.1126	0.0720	0.4908	0.0063
PU2	0.8525	0.0231	0.6637	0.0561	0.6278	0.0369	0.2373	0.1725	0.8060	0.0106
PU3M	1.0659	0.0374	0.7923	0.0922	0.8401	0.0550	0.8693	0.2744	0.8532	0.0140
TRIN	0.1941	0.0435	0.1664	0.0511	0.4250	0.0740	-0.1804	0.1057	0.4715	0.0173
PL1	0.2260	0.0135	0.1230	0.0347	0.1273	0.0238	-0.0378	0.0724	0.1093	0.0077
PL2	0.1862	0.0334	0.4177	0.0799	0.2285	0.0558	0.3079	0.1735	0.1382	0.0181
PL3M	0.3574	0.0720	0.6154	0.1578	0.4217	0.1292	-0.6078	0.4822	0.0787	0.0385
TOTAL NUM	338,897		34,173		73,283		11,730		2,229,542	
DEATHS	86,566		13,299		26,783		3,326		190,843	
MODEL CHISQ	40,378		6,793		7,093		688		150,640	

Table 4

Comparison
of 1986 and 1987
Parameter Estimates

Table 4.1

Diagnostic Category: Cancer(CA)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-0.694	-0.959
RAG	1.134	-2.072	-1.633
RAGSQ	1.286	1.550	1.350
SEX	0.487	-0.259	-0.240
DI	0.034	-0.027	-0.102
OP	0.126	-0.100	-0.056
CA	0.485	0.585	0.577
LV	0.014	1.256	1.357
RN	0.018	1.030	1.047
CE	0.014	-0.022	-0.063
HY	0.010	-0.321	-0.368
CV	0.191	0.318	0.352
PH1	0.221	0.890	0.905
PH2	0.060	1.300	1.311
PH3M	0.021	1.555	1.559
PU1	0.150	0.401	0.422
PU2	0.038	0.730	0.672
PU3M	0.260	0.800	0.800
TRIN	0.025	-0.251	-0.263
PL1	0.087	0.164	0.157
PL2	0.011	0.225	0.177
PL3M	0.002	0.177	0.127
TOTAL CASES		222,229	216,565
DEATHS		93,522	89,692
Mortality	Average Case	45.1%	44.9%
	Observed	42.1%	41.4%
Interhospital Variance		0.00137	0.00130
MODEL CHISQ		25,026	23,809

Table 4.2

Diagnostic Category: CEREBROVASCULAR ACCIDENTS(CE)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	1.270	1.200
RAG	1.192	-6.660	-6.615
RAGSQ	1.422	3.743	3.712
SEX	0.582	-0.057	-0.048
DI	0.093	0.090	0.102
OP	0.070	0.114	0.128
CA	0.300	0.836	0.810
LV	0.003	0.959	0.967
RN	0.019	0.959	0.880
CE	0.038	-0.697	-0.628
HY	0.048	-0.043	-0.078
CV	0.382	0.319	0.353
PH1	0.107	0.485	0.467
PH2	0.015	0.895	0.840
PH3M	0.003	1.232	1.220
PU1	0.081	0.367	0.381
PU2	0.011	0.688	0.659
PU3M	0.003	0.932	0.708
TRIN	0.018	-0.144	-0.047
PL1	0.093	0.125	0.121
PL2	0.012	0.265	0.176
PL3M	0.002	0.280	0.363
TOTAL CASES		238,401	240,896
DEATHS		64,594	63,407
Mortality	Average Case	29.3%	28.3%
	Observed	27.1%	26.3%
Interhospital Variance		0.00044	0.00039
MODEL CHISQ		12,188	11,842

Table 4.3

Diagnostic Category: NEUROPSYCHIATRIC/SENSORY(EY)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-5.033	-5.281
RAG	1.069	-2.063	-1.561
RAGSQ	1.143	2.402	2.230
SEX	0.580	-0.617	-0.575
DI	0.052	0.171	0.176
OP	0.074	0.332	0.356
CA	0.020	1.869	1.933
LV	0.011	1.102	0.890
RN	0.011	1.558	1.616
CE	0.052	0.376	0.207
HY	0.017	-0.119	-0.042
CV	0.177	0.714	0.680
PH1	0.042	1.165	1.017
PH2	0.006	1.535	1.696
PH3M	0.001	2.130	1.933
PU1	0.081	0.556	0.542
PU2	0.012	1.073	0.950
PU3M	0.004	1.304	1.473
TRIN	0.008	0.673	0.517
PL1	0.146	0.113	0.146
PL2	0.029	0.161	0.141
PL3M	0.009	-0.125	0.070
TOTAL CASES		270,607	245,185
DEATHS		5,542	5,633
Mortality	Average Case	1.14%	1.27%
	Observed	2.05%	2.30%
Interhospital	Variance	0.00005	0.00006
MODEL CHISQ		7,273	7,524

Table 4.4

Diagnostic Category: GASTROINTESTINAL CATASTROPHES(GC)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-2.478	-2.309
RAG	1.124	-0.188	-0.470
RAGSQ	1.263	1.110	1.233
SEX	0.544	-0.121	-0.118
DI	0.061	-0.128	-0.164
OP	0.081	0.024	0.005
CA	0.083	1.040	1.067
LV	0.175	0.896	0.909
RN	0.062	0.651	0.680
CE	0.017	-0.424	-0.507
HY	0.019	-0.174	-0.304
CV	0.249	0.568	0.571
PH1	0.154	0.508	0.443
PH2	0.043	0.560	0.591
PH3M	0.02	0.716	0.575
PU1	0.155	0.270	0.292
PU2	0.034	0.430	0.490
PU3M	0.013	0.427	0.520
TRIN	0.022	0.327	0.313
PL1	0.112	0.197	0.143
PL2	0.017	0.344	0.174
PL3M	0.003	0.317	0.145
TOTAL CASES		52,534	52,907
DEATHS		18,040	18,329
Mortality	Average Case	32.5%	32.4%
	Observed	34.3%	34.6%
Interhospital	Variance	0.00232	0.00229
MODEL CHISQ		5,175	5,215

Table 4.5

Diagnostic Category: GASTROINTESTINAL DISEASE(GI)			
		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-4.605	-3.563
RAG	1.127	-3.714	-5.535
RAGSQ	1.270	3.467	4.257
SEX	0.558	-0.097	-0.124
DI	0.045	0.350	0.268
OP	0.093	0.207	0.246
CA	0.026	1.577	1.640
LV	0.013	1.294	1.373
RN	0.013	1.679	1.490
CE	0.016	0.092	0.097
HY	0.021	-0.134	-0.148
CV	0.228	0.772	0.771
PH1	0.046	1.011	1.007
PH2	0.006	1.463	1.458
PH3M	0.001	1.949	1.872
PU1	0.087	0.501	0.526
PU2	0.013	0.848	0.999
PU3M	0.003	1.269	1.067
TRIN	0.006	0.636	0.670
PL1	0.117	0.212	0.218
PL2	0.018	0.297	0.380
PL3M	0.004	0.459	0.297
TOTAL CASES		461,326	451,765
DEATHS		13,703	13,776
Mortality	Average Case	1.8%	1.8%
	Observed	3.0%	3.0%
Interhospital	Variance	0.00004	0.00004
MODEL CHISQ		16,023	16,232

Table 4.6

Diagnostic Category: UROLOGIC DISEASE(GU)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-4.917	-4.723
RAG	1.120	-5.328	-5.528
RAGSQ	1.254	4.515	4.469
SEX	0.157	0.457	0.593
DI	0.039	0.354	0.454
OP	0.080	0.386	0.149
CA	0.038	1.395	1.430
LV	0.002	1.436	1.422
RN	0.017	1.451	1.473
CE	0.013	0.448	0.586
HY	0.015	-0.063	-0.012
CV	0.175	0.892	0.933
PH1	0.040	1.066	1.152
PH2	0.005	1.615	1.599
PH3M	0.000	1.974	0.000
PU1	0.078	0.721	0.636
PU2	0.011	1.060	1.087
PU3M	0.003	1.556	1.589
TRIN	0.006	0.201	0.646
PL1	0.119	0.238	0.165
PL2	0.017	0.431	0.491
PL3M	0.004	0.473	0.834
TOTAL CASES		271,619	277,784
DEATHS		4,922	4,634
Mortality	Average Case	0.9%	0.8%
	Observed	1.8%	1.7%
Interhospital Variance		0.00006	0.00005
MODEL CHISQ		8,032	7,689

Table 4.7

Diagnostic Category: GYNECOLOGIC DISEASE(GY)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-6.090	-9.179
RAG	1.091	-5.538	
RAGSQ	1.190	4.778	2.312
SEX	1		
DI	0.025	0.187	0.984
OP	0.038	0.540	0.132
CA	0.012	2.219	2.184
LV	0.002	1.689	1.887
RN	0.005	2.668	2.230
CE	0.009	0.912	0.347
HY	0.012	-0.536	0.307
CV	0.096	1.341	1.340
PH1	0.012	1.022	1.681
PH2	0.001	1.643	2.903
PH3M	0		
PU1	0.037	1.117	0.976
PU2	0.004	2.109	1.108
PU3M	0.001	2.208	1.559
TRIN	0.001	0.901	1.358
PL1	0.062	0.428	-0.305
PL2	0.006	0.996	0.626
PL3M	0	0.217	
TOTAL CASES		60,709	61,870
DEATHS		292	273
Mortality	Average Case	0.2%	0.2%
	Observed	0.5%	0.4%
Interhospital	Variance	0.00003	0.00003
MODEL CHISQ		742	667

Table 4.8

Diagnostic Category: LOW-RISK HEART DISEASE(HL)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-3.416	-3.165
RAG	1.132	-4.227	-4.678
RAGSQ	1.281	3.188	3.381
SEX	0.550	-0.307	-0.298
DI	0.061	0.294	0.299
OP	0.093	0.187	0.200
CA	0.020	1.500	1.509
LV	0.003	1.155	1.227
RN	0.016	1.274	1.184
CE	0.019	0.070	0.035
HY	0.038	-0.127	-0.170
CV	0.517	0.584	0.544
PH1	0.090	0.919	0.880
PH2	0.012	1.447	1.440
PH3M	0.003	1.938	2.035
PU1	0.078	0.428	0.456
PU2	0.011	0.832	0.861
PU3M	0.003	0.963	1.195
TRIN	0.036	0.726	0.673
PL1	0.171	0.180	0.190
PL2	0.035	0.286	0.255
PL3M	0.011	0.430	0.426
TOTAL CASES		806,069	818,849
DEATHS		27,612	27,786
Mortality	Average Case	2.5%	2.4%
	Observed	3.4%	3.4%
Interhospital	Variance	0.00002	0.00002
MODEL CHISQ		21,313	21,104

Table 4.9

Diagnostic Category: SEVERE CHRONIC HEART DISEASE (HM)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-1.613	-1.958
RAG	1.187	-2.450	-1.776
RAGSQ	1.409	2.052	1.735
SEX	0.551	-0.249	-0.237
DI	0.102	-0.020	-0.047
OP	0.187	0.008	0.003
CA	0.034	0.841	0.803
LV	0.008	0.855	0.711
RN	0.066	0.781	0.726
CE	0.020	-0.146	-0.081
HY	0.033	-0.340	-0.399
CV	0.594	0.118	0.080
PH1	0.202	0.629	0.633
PH2	0.061	0.975	0.951
PH3M	0.028	1.249	1.173
PU1	0.121	0.347	0.321
PU2	0.022	0.561	0.532
PU3M	0.006	0.771	0.654
TRIN	0.011	0.547	0.461
PL1	0.118	0.121	0.109
PL2	0.021	0.143	0.122
PL3M	0.005	0.192	0.205
TOTAL CASES		306,819	311,444
DEATHS		71,429	70,762
Mortality	Average Case	21.1%	20.6%
	Observed	23.3%	22.7%
Interhospital	Variance	0.00037	0.00032
MODEL CHISQ		20,525	19,097

Table 4.10

Diagnostic Category: SEVERE ACUTE HEART DISEASE(HS)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-0.520	-0.386
RAG	1.156	-3.194	-3.497
RAGSQ	1.336	2.548	2.678
SEX	0.482	-0.048	-0.038
DI	0.083	0.145	0.174
OP	0.108	-0.163	-0.153
CA	0.028	0.606	0.556
LV	0.003	1.181	1.032
RN	0.029	0.846	0.817
CE	0.015	-0.486	-0.504
HY	0.033	-0.310	-0.286
CV	0.675	0.251	0.252
PH1	0.137	0.473	0.426
PH2	0.023	0.840	0.801
PH3M	0.006	1.217	1.172
PU1	0.083	0.350	0.357
PU2	0.013	0.663	0.633
PU3M	0.004	0.984	0.977
TRIN	0.043	-0.325	-0.448
PL1	0.105	0.114	0.110
PL2	0.017	0.230	0.150
PL3M	0.005	0.294	0.372
TOTAL CASES		252,802	246,665
DEATHS		98,629	94,172
Mortality	Average Case	37.7%	36.5%
	Observed	39.0%	38.2%
Interhospital Variance		0.00062	0.00067
MODEL CHISQ		15,388	14,457

Table 4.11

Diagnostic Category: METABOLIC/ELECTROLYTE DISORDERS(ME)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-2.571	-3.205
RAG	1.209	-1.183	0.267
RAGSQ	1.462	1.558	0.835
SEX	0.639	-0.478	-0.430
DI	0.067	0.032	-0.080
OP	0.088	0.025	0.024
CA	0.164	1.649	1.617
LV	0.010	0.925	0.866
RN	0.057	0.662	0.642
CE	0.082	-0.209	-0.264
HY	0.019	-0.252	-0.200
CV	0.249	0.664	0.625
PH1	0.176	0.541	0.544
PH2	0.040	0.865	0.776
PH3M	0.012	0.993	1.018
PU1	0.165	0.331	0.317
PU2	0.036	0.504	0.425
PU3M	0.015	0.671	0.624
TRIN	0.003	0.221	0.326
PL1	0.124	0.043	0.045
PL2	0.019	0.018	0.058
PL3M	0.004	-0.223	-0.116
TOTAL CASES		106,268	105,282
DEATHS		25,226	26,485
Mortality	Average Case	20.8%	21.8%
	Observed	23.7%	25.2%
Interhospital	Variance	0.00206	0.00216
MODEL CHISQ		15,173	14,966

Table 4.12

Diagnostic Category: MUSCULOSKELETAL/SKIN CONDITIONS(OP)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-3.731	-3.313
RAG	1.121	-5.093	-5.814
RAGSQ	1.257	3.932	4.244
SEX	0.666	-0.485	-0.469
DI	0.059	0.354	0.366
OP	0.066	0.384	0.463
CA	0.024	1.916	1.885
LV	0.004	1.516	1.573
RN	0.010	1.609	1.641
CE	0.023	0.273	0.295
HY	0.017	0.024	0.046
CV	0.170	1.019	0.985
PH1	0.031	0.999	1.058
PH2	0.004	1.533	1.447
PH3M	0.001	2.081	2.187
PU1	0.066	0.557	0.494
PU2	0.009	0.905	0.970
PU3M	0.003	1.318	1.433
TRIN	0.004	0.703	0.866
PL1	0.123	0.056	0.041
PL2	0.018	0.200	0.086
PL3M	0.004	0.378	-0.007
TOTAL CASES		598,973	585,696
DEATHS		12,993	13,186
Mortality	Average Case	1.2%	1.2%
	Observed	2.2%	2.3%
Interhospital	Variance	0.00003	0.00004
MODEL CHISQ		18,431	18,616

Table 4.13

Diagnostic Category: PULMONARY DISEASE (PN)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-2.430	-2.601
RAG	1.191	-1.642	-1.152
RAGSQ	1.418	1.983	1.708
SEX	0.509	-0.340	-0.335
DI	0.055	0.096	0.104
OP	0.261	-0.300	-0.302
CA	0.084	1.063	1.070
LV	0.007	0.848	0.649
RN	0.031	0.974	0.849
CE	0.051	0.046	0.028
HY	0.020	-0.306	-0.299
CV	0.386	0.382	0.388
PH1	0.162	0.708	0.682
PH2	0.038	1.017	0.961
PH3M	0.012	1.235	1.227
PU1	0.134	0.547	0.530
PU2	0.028	0.852	0.818
PU3M	0.010	1.066	1.055
TRIN	0.008	0.194	0.133
PL1	0.095	0.226	0.234
PL2	0.014	0.186	0.266
PL3M	0.003	0.357	0.288
TOTAL CASES		338,897	339,986
DEATHS		86,566	87,977
Mortality	Average Case	22.3%	22.6%
	Observed	25.5%	25.9%
Interhospital	Variance	0.00078	0.00072
MODEL CHISQ		40,378	38,547

Table 4.14

Diagnostic Category: RENAL FAILURE(RN)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-5.368	-4.716
RAG	1.112	4.038	2.488
RAGSQ	1.237	-0.173	0.572
SEX	0.493	-0.152	-0.132
DI	0.117	0.117	0.118
OP	0.061	0.194	0.230
CA	0.087	1.024	0.946
LV	0.014	1.524	1.263
RN	0.137	-0.097	-0.069
CE	0.026	-0.152	-0.011
HY	0.088	-0.406	-0.345
CV	0.349	0.611	0.642
PH1	0.224	0.384	0.377
PH2	0.058	0.677	0.651
PH3M	0.022	0.857	1.037
PU1	0.189	0.321	0.324
PU2	0.049	0.664	0.416
PU3M	0.021	0.792	0.794
TRIN	0.054	0.166	0.181
PL1	0.135	0.123	0.192
PL2	0.023	0.418	0.319
PL3M	0.004	0.615	0.462
TOTAL CASES		34,173	33,325
DEATHS		13,299	12,531
Mortality	Average Case	35.9%	33.0%
	Observed	38.9%	37.6%
Interhospital	Variance	0.01353	0.01217
MODEL CHISQ		6,793	6,125

Table 4.15

Diagnostic Category: INFECTIOUS DISEASE(SE)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-1.963	-2.265
RAG	1.185	-0.879	-0.228
RAGSQ	1.404	1.327	0.967
SEX	0.578	-0.136	-0.120
DI	0.098	-0.010	-0.007
OP	0.073	-0.051	-0.053
CA	0.128	0.742	0.737
LV	0.016	0.956	0.976
RN	0.065	0.883	0.750
CE	0.041	-0.269	-0.324
HY	0.016	-0.376	-0.318
CV	0.267	0.513	0.517
PH1	0.184	0.589	0.563
PH2	0.045	0.766	0.731
PH3M	0.014	1.043	0.960
PU1	0.183	0.375	0.413
PU2	0.046	0.628	0.620
PU3M	0.019	0.840	0.796
TRIN	0.011	0.425	0.446
PL1	0.124	0.127	0.149
PL2	0.019	0.229	0.233
PL3M	0.003	0.422	0.250
TOTAL CASES		73,283	77,856
DEATHS		26,783	27,664
Mortality	Average Case	34.5%	33.7%
	Observed	36.5%	35.5%
Interhospital	Variance	0.00195	0.00168
MODEL CHISQ		7,093	6,964

Table 4.16

Diagnostic Category: SEVERE TRAUMA(TR)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-1.219	-1.498
RAG	1.161	-1.628	-1.358
RAGSQ	1.348	1.514	1.460
SEX	0.479	-0.238	-0.244
DI	0.039	0.198	-0.063
OP	0.075	-0.372	-0.249
CA	0.033	1.108	0.821
LV	0.008	1.123	1.158
RN	0.013	1.190	1.110
CE	0.048	-0.969	-0.488
HY	0.015	-0.522	-0.172
CV	0.246	0.586	0.575
PH1	0.119	0.037	0.109
PH2	0.015	0.440	0.381
PH3M	0.003	0.790	0.924
PU1	0.092	0.113	0.213
PU2	0.014	0.237	0.401
PU3M	0.004	0.869	0.810
TRIN	0.051	-0.180	-0.172
PL1	0.096	-0.038	-0.026
PL2	0.013	0.308	-0.234
PL3M	0.003	-0.608	0.252
TOTAL CASES		11,730	11,777
DEATHS		3,326	3,306
Mortality	Average Case	26.3%	26.1%
	Observed	28.4%	28.1%
Interhospital Variance		0.00348	0.00303
MODEL CHISQ		688	621

Table 4.17

Diagnostic Category: ALL OTHER DISEASES (UN)			
VARIABLES		Coefficients	
		1986	1987
Names	1987 Average Case		
INTERCEPT	1	-3.699	-3.526
RAG	1.136	-2.133	-2.457
RAGSQ	1.290	2.307	2.435
SEX	0.581	-0.321	-0.293
DI	0.061	0.156	0.169
OP	0.122	0.249	0.240
CA	0.086	1.191	1.174
LV	0.008	1.442	1.429
RN	0.028	1.094	1.066
CE	0.032	0.009	0.019
HY	0.022	-0.219	-0.222
CV	0.275	0.678	0.660
PH1	0.081	0.886	0.918
PH2	0.014	1.335	1.327
PH3M	0.004	1.661	1.623
PU1	0.148	0.491	0.483
PU2	0.034	0.806	0.752
PU3M	0.018	0.853	0.736
TRIN	0.012	0.472	0.423
PL1	0.104	0.109	0.115
PL2	0.016	0.138	0.107
PL3M	0.003	0.079	0.086
TOTAL CASES		2,229,542	2,200,419
DEATHS		190,843	187,048
Mortality	Average Case	6.1%	6.0%
	Observed	8.6%	8.5%
Interhospital	Variance	0.00008	0.00007
MODEL CHISQ		150,640	144,234

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